

CHOICE

Independent information for smart consumers

Margin loans

SHOULD YOU BORROW
TO INVEST?

How to keep
your whole
house cool

Should you
immunise
your child?

Tests

WALL OVENS

AIR CONDITIONERS

LIGHT BULBS

COFFEE

On the skids

TYRE AND BRAKE SERVICE CHAINS



New service for subscribers

CHOICE can help you even more as of this month, with the introduction of CHOICE Shopper. Full details are on page 4, but essentially this free service will find the product you want at a very good price and arrange for a retailer to supply you with it. If that sounds like a good deal, keep it in mind next time you're buying an appliance with a significant price tag.

Another free service currently available to personal CHOICE subscribers is trial access to our website. See below for how to get it if you haven't registered already.

The website lets you tailor information to your personal needs. For example, click on 'tools and shortcuts' on the home page and then 'toolkit', and you'll find more than 30 interactive tools that let you compare products (like dishwashers, washing machines or cameras); use a calculator to work out what's the best travel or health insurance for you; take a quiz; check our cars database, and more.

These are some of the ways you can get value from your subscription beyond CHOICE itself — and then there are the other CHOICE publications:

- **Computer CHOICE**, for anyone who's ever wanted to cut through the hype and jargon of the computer industry and actually learn something useful.
 - **CHOICE Travel**, to put some practicalities behind your dream destinations.
 - **CHOICE Health Reader**, which keeps you up-to-date with the latest research in health, nutrition, exercise and medicine.
 - **CHOICE books** — a wide range of subjects for all tastes. You'll find a catalogue in this issue.
 - **Consuming Interest**, our policy and campaigning magazine, if you're interested in the broader political aspects of the consumer world.
- For more information on any of these, or to subscribe, call us on the number given below. Also call, write to or email us with any consumer experiences you have, scams you uncover or questions you have (see page 16) — we welcome you as an active member of the Consumers' Association as well as a CHOICE reader.

Jane Mackenzie
Editor

CHOICE

is published by the Australian Consumers' Association

YOUR LETTERS

We welcome the letters you send us — please always include a daytime telephone number so we can contact you quickly if we want to follow up your letter. We're sorry we can't answer every letter we receive, but we do use them in our research. Thanks for taking the time to keep in touch.

CONTACT US

WRITE to us at CHOICE, 57 Carrington Road, Marrickville 2204.
PHONE us on (02) 9577 3399.

FAX us on (02) 9577 3355.

EMAIL us at ausconsumer@choice.com.au.

CHECK OUT OUR WEBSITE

www.choice.com.au

If you're a current personal CHOICE subscriber you can have free trial access to our website. Just call Consumer Services on (02) 9577 3399 and have your email address ready. As well as finding all the articles in CHOICE there, you can use COMPARE A PRODUCT (type in your requirements and let the database find the right model for you), participate in our forums, catch up on our latest campaigns, tell us what you think about us and order books or single reports from our shop.

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REQUEST A TEST

If you've seen something you'd like us to test, email us at requestatest@choice.com.au or call us on (02) 9577 3399.

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We test and rate products and services. Our ratings are usually based on quality without regard to price, and are derived from lab tests, expert judgments and reader surveys. If a product is high in quality and relatively low in price, we deem it a **Best Buy**. A rating applies only to the brand and model tested, not to other models sold under the same brand name, unless so noted. Financial information in CHOICE is of a general nature, and is not intended to be advice on individual investments.

We represent and act in consumers' interests. We lobby and campaign on behalf of consumers to promote their rights, to influence government policy, and to ensure consumer issues have a high profile in the public arena.

Membership. Subscribers can become voting members of the Consumers' Association on application. Voting membership costs \$89.10 for a year, which covers your subscription to CHOICE with free access to CHOICE Online and a further subscription to our policy and campaigning magazine, *Consuming Interest*.

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CONTENTS

October 2001

COVER STORY

8 Chains with weak links

Tyre and brake service chains seem to need a tune-up.

Cover photo: Masterfile Australia



REPORTS

17 Are you drinking enough water?

How much should you drink every day? Will other fluids (or even food) do instead? What happens if you don't get enough?

20 Invest with other people's money?

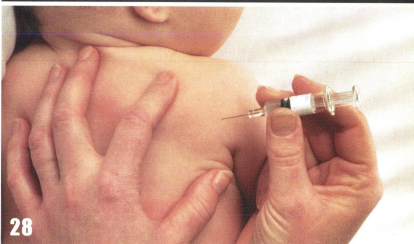
Margin loans are one way; here's what to watch out for.

24 Mushrooms

Find your way around the different varieties.

28 Vaccinating your child

Some people are more frightened of the vaccines than of the diseases they prevent. Find out the facts.



40 A really cool home: ducted air conditioners

How to cool (and heat) your whole house.

TESTS

11 Instant coffee: which tastes best?

CHOICE's panel of Home Testers makes it easy to choose.

14 Light bulbs

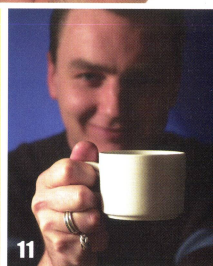
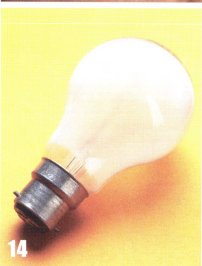
How much do you need to pay?

35 Reverse-cycle air conditioners

Models to cool a bedroom or small living area.

43 Wall ovens

Stainless steel electric models with a variety of oven functions: are they worth the money?



REGULARS

4 Choice Cuts

7 Your Letters

16 Appetisers: Soy sauce, strange chocolate and more

27 Drivelines: Crash test results for large sedans

33 Your Money: Credit card loyalty schemes

34 Computing CHOICE: Webmail

48 Recalls and bans

50 Home page: What's new at www.choice.com.au

51 CHOICE index

52 The Hard Word





Let CHOICE shop for you!

Starting in October, CHOICE has a new free service for subscribers: CHOICE Shopper. You tell us the brand name and model number of the product you want to buy and a price you'd like to beat, and we'll try to find it for you.

The products covered include:

- Electrical appliances for the laundry, kitchen and home entertainment.
- Cameras.
- Printers (except in SA, WA and the NT).
- Cars over \$10,000.
- Computers. In this case, CHOICE Shopper will ask if you're interested in a 'clone' or a brand name and direct you to the appropriate supplier.

For all products, the price must be more than \$100, and the service is restricted to personal CHOICE subscribers, not institutions or companies.

HOW IT WORKS

You decide on the make and model you'd like and a price you want to beat — maybe a price you've seen in a local shop.

Then you call CHOICE Shopper on **1300 360 655** (Monday to Friday, 9 am to 5 pm) and quote your subscriber number (you'll find it in the top corner of the mailing label that comes with CHOICE). We'll start contacting retailers to get the best possible price for you.

We'll call you back, usually within 24 hours, to let you know if we can beat your price. If you want to go ahead and buy, we'll place the order and the retailer will contact you to finalise the payment and delivery arrangements. Up till then you remain anonymous to retailers while CHOICE Shopper is getting quotes. It's not a pricing service, so please phone when you're ready to buy, though you can change your mind until the order is placed.

Normal warranty and service conditions apply to any sale, and the total price includes any delivery cost (usually free in metropolitan areas), but not usually installation.

CHOICE Shopper may not always be able to find a cheaper price than you have (in which case we'll let you know), but is likely to do so in 85–90% of cases. Examples include a saving of \$249 on a TV and \$440 for a video camera.

By the way, you can't use the phone number above for normal CHOICE enquiries and subscriptions; use our normal number — (02) 9577 3399 — for that.



Numbers now mobile too

From September 25 this year you've no longer had to be tied to your mobile phone company by your number. You can now change from one company to another at will, taking your current number with you. The Australian Communications Authority thinks the should take only a few hours.

This is really good news if you're looking for the best deal, because you can change companies at will, without having to contact everyone you know to give them a new phone number. If you're running a small business this could be a substantial saving.

But it's not all good news. There are some traps you'll need to keep in mind:

- You can move from a GSM phone to CDMA or visa versa, but you'll need a new handset; and going from one GSM provider to another will require a new SIM card.
- When you leave your current provider your contract will end, but you may have to pay cancellation fees as well as all outstanding call charges, etc, so you may be better off waiting till the contract expires. Also look carefully at the conditions of your new contract.
- You may be charged a fee to transfer your number.
- If you've got a prepaid package you may need to get the

SIM card unlocked before you can move to a new provider, and there could be a cost for this.

- Personal SIM locks also need to be removed before the transfer can take place.
 - Don't cancel your existing service before moving. Only active numbers can be transferred, so cancelling before you move will render your current number unavailable.
 - As of September 25 you can't necessarily rely on the number prefix to tell you which provider a number relates to. This may have an impact on your call costs if you rely on low rates for calls to people using the same provider.
 - You don't have to keep the same handset, but make sure you take the cost of a new one into account when looking at your new contract.
 - Only the person who signed the existing contract can move the number to another provider. If you think you've been moved without your knowledge, contact your original provider.
- For more information on number portability, contact the Australian Communications Authority on (03) 9963 6800, or go to its website, www.aca.gov.au/consumer/index.htm, and follow the links to consumer factsheets.

UPDATE

ENERGY DRINKS

CHOICE, August 2001

Our article reported on caffeinated 'energy' drinks and the potential problems they could pose for children or if used as sports drinks. The amount of caffeine in a 250 mL can of some of these drinks is equivalent to a cup of espresso coffee (60–80 mg), so one or two cans are enough for some kids to have an adverse reaction, such as increased anxiety.

Since then, the Australia New Zealand Food Authority (ANZFA) has recommended to its new-look Ministerial Council that energy drinks should be approved for manufacture in Australia if they carry a warning statement that children and pregnant or breastfeeding women shouldn't drink them, and that health professionals recommend reducing consumption of caffeine.

The Consumers' Association thinks this was a step in the right direction, but that ANZFA's recommendation didn't address the real issue — the loophole in the regulations that allows these drinks to be imported from New Zealand without warnings or disclosure of the



amount of caffeine in them. But the Ministers didn't even go as far as ANZFA was hoping.

It was a test case for the new council (which now includes trade, industry and agriculture ministers as well as the health ministers) to see to what extent they're captured by industry — and the results speak for themselves.

The council watered down ANZFA's already weak proposal, failing to provide all the recommended warning labels. Australian energy drinks will only have to carry a statement that they're not suitable for children, pregnant or breastfeeding women or people who are sensitive to caffeine, and state the amount of caffeine in them in the nutrition information panel. However, there's no size or placement requirement for the labelling, so

easily overlooked small print on the back of the can could end up being the only warning.

New Zealand energy drinks will remain on the shelves without requiring any warnings or disclosure of the amount of caffeine in them on the can or bottle. And whether they're from Australia or New Zealand they'll still be able to make claims about extra 'effects' these drinks have on the body, despite the fact that they're not tested for validity.

Now consumers not only have to sift their way through a mass of unverified claims about the 'benefits' of these drinks, but also a wide variation in the warnings and disclosure of caffeine on labels — not quite the consistent health focus we'd like to see from our food regulator.

CAN YOU HELP?

Breadmakers

CHOICE would like to hear of your experiences using a breadmaker. Tell us the brand and model you have and any other information, such as:

- How easy is it to get good bread out of it? Have you found any bread premix particularly good or bad, or do you make bread from scratch?
- Do you find local or seasonal climate variations affect the bread, and what do you do to cope?
- Do you find the machine useful for making special breads, such as gluten-free or salt-free, or fancy styles like raisin bread?
- How often do you use your breadmaker?
- Is the machine easy to program, use and clean?
- Have any of the parts broken or worn out, and have you been able to get them fixed or replaced easily? How much did it cost?
- Have you had any other problems with it?
- Do you think it was a worthwhile purchase?

Please reply by mail to **Breadmakers, CHOICE**, 57 Carrington Road, Marrickville 2204, or by email to breadmakers@choice.com.au, by October 15.

Thank you for your help.

CHEAP FLAT-BED SCANNERS

There's a stack of cheap scanners on the market and they've certainly improved over the years, but how much does a low price compromise quality? *Computer CHOICE* put 10 scanners under \$250 through their paces and came up with three clear winners.

None of the scanners in this test came with a printed manual or guide, although they had set-up guides and some basic help files on the CD-ROM supplied. It appears manufacturers have come to the conclusion that if you want a cheap scanner, you don't want lots of technical stuff. So we took them at their implied word and checked them out using the settings they supplied.

All the scanners were easy to set up and most were easy to use, but only the three below were good overall.

- The **AGFA Snapscan e20** (\$169) is very good for everything but optical character recognition (OCR — converting a scan of a

page of text from an image to an editable text file), where it's only adequate.

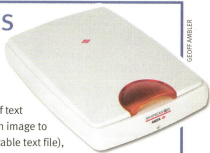
It's fairly easy to use at a low price.

- The **HP ScanJet 4300C** (\$199) is a fair performer and is very easy to use at a reasonable cost.

- The **MUSTEK Bear Paw 1200 UB** (\$168) works well and is easy to use.

Unfortunately the **HP** and **MUSTEK** have been discontinued since the test, but you may still find them in shops.

In the September/October issue of *Computer CHOICE* there's lots more detail on the 10 scanners, as well as advice on what to look for when buying one. To subscribe to *Computer CHOICE*, call 1800 069 552.



GEORGE AMER

CHOICE CUTS

CORRECTIONS

HIGHCHAIRS

CHOICE, August 2001

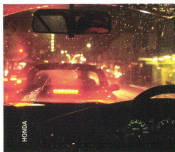
The price given for the IKEA Vitnos (\$98) is for the highchair only; the tray costs an extra \$20. The waist strap costs \$4, not \$20 as stated.



IS YOUR CAR KEEPING YOU OFF THE STREETS?

CHOICE, September 2001

The Honda Civic pictured in 'Reliable choices', page 12, is the current model, whereas the reliability information in this section of the article relates to the model produced between January 1997 and March 2000.



SALAD: JUST RABBIT FOOD?

CHOICE, September 2001

Our information on flowers on pages 16-17 was confusing. It should have stated more clearly that the flowers listed may be toxic and you shouldn't eat them. Only roses, nasturtiums, violets (not African violets), clover and squash flowers are edible.



GOOD NEWS FOR SLIM-GEL CUSTOMERS

Last month on the CHOICE home page we reported on Slim-gel, a small patch of gel that was making weight-loss claims that clearly didn't meet Australian regulations.

We sent our concerns about the product and the advertising campaign to the Therapeutic Goods Administration (TGA) and the Australian Competition and Consumer Commission (ACCC).

The ACCC is continuing to investigate the issue, but in the meantime the Singapore-based company marketing the product, Health & Science Inc Pte Ltd, has agreed to:

- Immediately give a refund to any Australian consumer who requests one.
- Inform anyone who places an order that it can't be fulfilled.
- Return any cash payments.

Cheque refunds should take 14-21 days.

If you have any problems, contact the company directly on 0011 65 846 3494; if it can't be resolved, contact the ACCC on 1300 302 502.

The refund also applies to the following products that the company marketed to Australian consumers:

- Celluslim.
- Celebrity Image — Detox and Slim.

THESE LETTERS PROVE... YOU CAN DOUBLE YOUR WEIGHT LOSS WITH THE Slim-Gel Patch™ PLUS

48 In First 2 Weeks... 100% of women who used the Slim-Gel Patch™ PLUS lost weight... 100% of women who used the Slim-Gel Patch™ PLUS lost weight... 100% of women who used the Slim-Gel Patch™ PLUS lost weight...

THE NEW 2 Part Slim-Gel Patch™ PLUS

1. THE NEW 2 Part Slim-Gel Patch™ PLUS... 2. THE NEW 2 Part Slim-Gel Patch™ PLUS... 3. THE NEW 2 Part Slim-Gel Patch™ PLUS...

New evidence for cranberry juice

In July CHOICE we addressed 10 items of popular health folklore, including the claim that drinking cranberry juice prevents urinary tract infections. At the time of publishing, little evidence suggested there was any truth in it.

However, a recent Finnish study reported in September's CHOICE *Health Reader* found that a daily drink of cranberry-lingonberry juice concentrate reduced the chance of repeat urinary tract infections by 20% (compared with women who'd had no treatment).

It's difficult to know whether commercial cranberry juices available in Australia are comparable with the product used in the trial, but the findings suggest it could have some benefit and could be worth a try.

Moving right along to men's business, urologists in Britain have found that over 22% of men with erectile dysfunction (ED) have type 2 diabetes, compared to 7% of the overall male population.

This suggests ED may be an indicator for more serious problems, although whether it's a cause or effect isn't certain: the two main risk factors for type 2 diabetes are inactivity and obesity, both of which can independently affect sexual function.

Other articles in the current issue of *Health Reader* include eating lots of soy products to help reduce menopause symptoms, and how gym membership may paradoxically result in less total daily activity among older people. If you'd like to subscribe, call our Consumer Services on (02) 9577 3399.



YOUR LETTERS

Bouquets for oriental carpet report

I've been in the trade for nearly 30 years and I've never seen such true, concise and genuinely helpful information published anywhere, any time (CHOICE, July 2001, *Covet an oriental carpet?*). There are numerous introductory books — some very expensive — but they either require too much of a reader (who only wants to buy a rug, not make one) or, more often, simply end up in a morass of obfuscation.

In a really unusual trade where mystery is a product, you've managed to unveil the heart of the matter. You've impressively achieved this in an even and balanced manner, one that is fair to all sections of an extremely varied trade. From your introduction, a consumer could easily ascertain their own special requirements/interests and go on confidently from there, with a feeling of having actually learned something.

I know from years of fielding questions that your report covers and satisfies most people's requirements. I shall be renewing my subscription forever.

Keep up the good work.

Michael Cater
Antiques dealer specialising
in old oriental rugs
Bangalow, NSW



COURTESY CARPETS

Brickbats for flu picture

On the Letters page (CHOICE, July 2001) you have illustrated a discussion on influenza vaccination with a photograph of a woman who appears to have a nose cold, or perhaps hay fever, as she is sitting in a garden with flowers.

This picture is misleading: influenza doesn't make you sneeze. It puts you to bed for five days with a racking fever and severe aching all over, and with a little bit of bad luck it puts you in hospital with life-threatening complications.

Flu vaccination doesn't stop you having colds or hay fever. It is recommended because it reduces your chances of dying from a very nasty major illness.

Dr Michael Grounds
Strathfieldsaye, Vic

Who sings the songs?

I recently purchased from a supermarket a music CD that listed on the back a variety of

popular songs from the '80s.

When we played the CD, we found the singers were quite clearly not the original artists — but nowhere on the CD did it mention this. I would never have purchased it if I'd known the songs were performed by a bunch of unknowns!

I returned to the supermarket with my receipt and asked for a refund. They asked if there was anything wrong with it and explained they normally don't refund CDs. I did get my refund in the end, but had to fill out a form stating my contact details and produce two forms of ID.

CDs such as these should be marked as such to prevent consumers being misled.

Marsha Bennett
Embleton, WA

Without looking at the label in detail, it's difficult to say whether the CD in question was indeed misleading in a strict legal sense.

THUMBS UP



■ Elizabeth and Mark Robinson of Bellevue Hill, NSW, give the thumbs-up to two Australian companies: Adelaide-based OLIVERI, which replaced free of charge a plastic kitchen sink/drainer with a stainless steel one when the plastic model cracked seven years after installation; and Sydney-based MARTEC, which replaced free of charge outside the warranty period the motor of a ceiling fan that had already had problems earlier.

■ Mike Thomas of Malanda, Qld, awards a thumbs up to SEIKO Australia, which repaired his watch toward the end of the one-year warranty period and extended the warranty. When the same problem occurred 18 months later, the company told him it had discovered a fault in the parts used in the past and replaced the capacitor once more.

The Australian Competition and Consumer Commission (ACCC) says it probably wasn't, if the label only mentions 'popular songs' of the '80s, not 'ty popular artists of the '80s'.

It's obviously a case of buyer beware, though. Read the label thoroughly in the shop to make sure you're buying the songs, artists and versions you want. And if the performers aren't listed, don't buy it.

Let us know if you see a music CD or tape for sale that you think is misleading because no artists are listed. Send us the photocopied jacket or details of the title and where it's for sale. We'll follow it up with the ACCC and the Australian Record Industry Association.

LETTER OF THE MONTH

We want to hear from you — your experiences help our research and often let other readers know about scams and rip-offs. Positive outcomes you've had to a complaint you took to a manufacturer, retailer, importer or tradesperson interest us, too. Address these letters to *Thumbs Up* at the address on page 2. To thank you for writing to us, *Your Letters* awards a prize of a CHOICE book to the 'Letter of the Month'. This month's winner, Dr Michael Grounds of Strathfieldsaye, Victoria, receives *Earning Money From Home*, or any other book of his choice from the Consumer Bookshelf catalogue received with this issue.

We're sorry we don't have the resources to answer all your letters personally, and in the magazine we may edit them or print only an extract. See page 2 for how to reach us.



CHAINS with weak links

Our snapshot check of car tyre and brake service chains found the majority of outlets not up to the job.

IN A NUTSHELL

- **None of the five tyre and brake service chains tested in our snapshot investigation scored well on average, and only one outlet of the 25 we checked managed a near perfect score.**
- **Some of the things the mechanics missed would have left a driver on a long trip with two potentially unsafe tyres and an illegal spare.**
- **On average, our female driver received much worse advice than our male driver.**

Often sloppy, overall gender-biased and sometimes even negligent — the service and advice we received during our check of car tyre and brake service chains showed that many outlets are in desperate need of a tune-up.

It sounds trivial: if you're asking for advice from tyre and brake experts, you should be able to expect expert advice on tyres and brakes. But far from it:

- Only seven out of 25 inspections discovered the clearly illegal tread on our test car's spare tyre.
- Two would have allowed our driver to go on a long journey with front tyres that would have become illegal and potentially unsafe during the trip.
- On average, our female driver received much worse advice than our male driver.
- The quotes and reports we received often left a lot to be desired.

OUR SHADOW SHOP

We wanted to find out about the quality of advice on tyres and brakes given by chains specialising in that kind of service.

In July 2001, we anonymously visited five Sydney outlets each of five chains advertising tyre and brake services. On 12 occasions we sent a female driver, on 13 a male.

They told the mechanics they wanted to take the car (a late-model Mitsubishi "belonging to a friend who's overseas") on a 3000 km return trip to Adelaide, and to

find out whether the tyres and brakes were up to it. They asked for a quote only, as they'd have to check any repairs with the owner first.

At the start of the shadow shop the car was inspected by the mechanic who maintains the CHOICE vehicle fleet. He established that:

- The spare tyre we deliberately put into the car was illegal (having less than 1.6 mm of tread).
- Both front tyres had about 2 mm of tread, and would need replacement after about 1000 km.
- One rear tyre would need replacement after about 3000 km. The other rear tyre was in good condition.
- The front brakes were about 60% worn, and would last for another 8000–10,000 km. The rear brakes were in good condition.
- The shock absorbers were in good condition.

An NRMA inspection carried out after the shadow shop supported these findings.

GREAT EXPECTATIONS?

We rated the quality of the advice on front tyres, rear tyres, spare tyre and brakes, as well as the detail of any quotes and verbal and/or written reports we received.

Ideally, we would have expected:

- A check of all five tyres.
- A check of all brakes with the car on a hoist and the wheels removed.
- Advice that the spare is illegal and the front tyres need replacement before going on a long trip. As one

Profiles

On average, there wasn't much difference in scores between the chains except for Kmart Tyre and Auto, which scored much lower than the others. However, the ranges (see the table below) show that all but BEAUREPAIRES had huge inconsistencies. (We didn't include BOB JANE, as it doesn't advertise brake service.)

GOODYEAR

Auto Service Centre

GOODYEAR

All the outlets gave good advice on the front tyres, but only two found the illegal spare. Two outlets gave very good advice overall (both to our male driver), with one almost earning a perfect score.

However, the three inspections our female driver attended scored much lower — two of them particularly poorly for not finding the illegal spare and incorrectly advising that the front brake pads needed replacement (an unnecessary and potentially costly repair).



BRIDGESTONE TYRE CENTRES

BRIDGESTONE

All the outlets gave good advice on the front tyres, but only two found the illegal spare. However, one of them only described it as "a bit dodgy", without giving clear advice that it must be replaced. One outlet advised our female driver that the rear shock absorbers needed replacing — incorrect information that, if followed, would have resulted in unnecessary costly repairs.

Beaurepaires

BEAUREPAIRES

All the outlets gave good advice on the front tyres, but none found the illegal spare. Overall, the advice across all five outlets was the most consistent of all the tested chains, albeit on a relatively average level without particularly poor or very good scores.



JAX

Only two outlets found the illegal spare. The overall score was pulled down by two poor scores (female driver in both cases): one outlet incorrectly advised that one of the rear tyres was punctured and needed replacing (but didn't give a quote); another said that all the tyres and brakes were fine and that the car should be brought back in after 5000–10,000 km. Two outlets charged for the inspection.

Kmart
Tyre & Auto Service

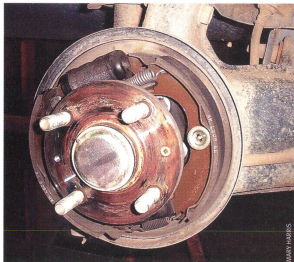
KMART TYRE AND AUTO

Only one outlet found the illegal spare. One didn't advise replacing the front tyres: while our driver told this outlet about the trip to Adelaide, and specifically asked for advice on tyres and brakes, the car was booked in for a general safety inspection. This came up with a number of minor defects, but didn't mention tyres and brakes at all, and didn't give any quote or report — a score of 0%!

Another outlet was extremely busy and delayed the agreed inspection time of our car by several hours. Finally, the mechanic put it on the hoist and identified the low tread on the front tyres. He then removed only one front and one rear wheel to check the brakes, basing his overall brake assessment on inspecting only two brakes. That's poor service: when it comes to car safety, being busy is no excuse for cutting corners.

Chain	Overall rating (%)	Range of scores (%)
GOODYEAR	60	33 – 94
BRIDGESTONE (A)	59	44 – 78
BEAUREPAIRES	57	50 – 67
JAX	57	17 – 83
KMART Tyre and Auto	37	0 – 61

(A) Bridgestone Australia offers the use of its brand name to franchisees who may also continue to trade under their own brand name. For example, two of the Sydney Bridgestone outlets we visited are also trading as Tyre Shoppe, two others as Jobsons. Bridgestone told us it requires certain standards from its franchisees regarding, for example, the level of equipment and the presentation of the outlet, but not regarding the standard of quoting and reporting.



You'd expect the brakes to be inspected with the wheels off and the car on a hoist: one outlet only removed two wheels.



Our illegal spare tyre (above left), with less than 1.6 mm of tread left, which only seven out of 25 inspections found. On the right is what a new tyre's tread looks like.

of the rear tyres also has only limited tread left, good advice could have been to buy four new tyres before going on the trip, and make the good rear tyre the spare.

- Advice that all brakes are in good condition and don't require immediate replacement.
- The advice to be given verbally (to give our driver the chance to ask questions) and in a written report.
- The price as well as the pros and cons of suitable tyre models to be discussed, the car's main use to be established, and a tyre model to be recommended accordingly.

These expectations aren't over the top, as demonstrated by one **GOODYEAR** outlet with an almost perfect score (see *Profiles*, page 9, for details).

WHAT WE FOUND

Unfortunately, reality was generally a fair way off our ideal expectations:

- Only seven of the 25 outlets found the illegal spare tyre.
 - Even more concerning: one **JAX** and one **KMAT Tyre and Auto** outlet said the front tyres were OK, even though our driver had told them about the planned trip to Adelaide — advice that would have had her (in both cases) driving with illegal and potentially unsafe tyres for part of the journey.
 - The quality of service was gender-biased. On average, the advice given to our male driver scored 63%, that to our female driver only 44%. Four outlets advised unnecessary and potentially costly repairs to rear tyres, brakes or shock absorbers (see *Profiles* for details) — all of them to our female driver.
 - There was no consistency in the quality and detail of quotes and reports we received from outlets of the same chain. And two of the **JAX** outlets charged us for the inspection, while the other three (like all the other outlets in our test) offered essentially the same service free. (One **KMAT Tyre and Auto** outlet initially charged our driver, but dropped the fee after he complained he hadn't been told about it when booking the car in.)
 - Only one outlet discussed driving habits before recommending a particular tyre model.
- CHOICE's verdict:** Not good enough. Our results suggest you can't rely on these tyre and brake chains to do a thorough job of inspecting your car and give you correct, safe advice. See *What you can do*, below, for some tips on getting the best you can out of them. ■

What you can do

Whether you just want advice, as in our shadow shop scenario, or to take your car in for service or repair, the following rules can help prevent unpleasant surprises:

- Some basic knowledge allows you to carry out some checks yourself. For example, tyres usually have tread wear indicators showing the minimum legal tread: 1.6 mm across the full width of the tyre.
- Clearly spell out what you want checked; you could even write out a list and give them a copy.
- Ask for an itemised quote for any repairs and a written report.
- Ask for an explanation of the pros and cons of different brands of spare parts — whether it's tyres or other products.
- If you're expecting major repairs, or if you're not convinced a quoted item really needs attention, get several quotes. For a fee, your state's motoring organisation will usually also inspect your car.

- If your car is being serviced, make sure the mechanic asks for your OK first if the car requires repair that's above the normal requirements and exceeds the quote by more than, say, 10%.
- Ask for an itemised bill that gives details of hours, hourly rates, parts required, part prices, etc.
- Check that all the repairs you're being billed for have been carried out. For example, if an engine oil change was done, check the new oil is translucent and honey-coloured; if parts have been replaced, ask to see both the old parts and (if feasible) where the new parts have been installed.
- If you're unhappy with any part of the service you've received, discuss it with the workshop manager or owner. If you can't resolve the problem, put your complaint to the management in writing. If there's still no agreement, you can write to your state's or territory's fair trading or consumer affairs department.

IN A NUTSHELL

- Overall, freeze-dried brands were liked the most and powdered ones the least. See the table on page 13 for results.
- Good news if you're trying to kick the caffeine habit — decaffeinated brands were rated very well overall, especially if they were freeze-dried.
- In general, you get what you pay for: all the freeze-dried coffees cost at least a dollar more per 100 g (medium-sized jar) than the next most expensive brand (granular), and at least \$3.50 more than most of the powdered brands.

What makes a good cup of instant coffee? Well, according to our panel of tasters, the stronger the aroma and flavour and the more pleasant the aftertaste, the better the coffee. It's that simple.

The table on page 13 shows which brands best met these criteria.

Freeze-dried brands won hands down, and whether they were caffeinated or decaffeinated didn't make a difference. Next came two decaffeinated granular brands, followed by a decaffeinated powdered coffee. Funnily enough, their caffeinated counterparts (where there was one) didn't do nearly as well.

Most of the powdered coffees (half of which were supermarket brands) were rated pretty poorly. Our tasters found that all the supermarket-brand powders had an unpleasant aftertaste.

What makes freeze-dried better?

Making good coffee depends not only on the drying method but also on the selection and blending of coffee beans and the brewing process. So, while freeze-drying leads to less loss of flavour compounds than spray-drying, you also need good-quality beans to do the trick.

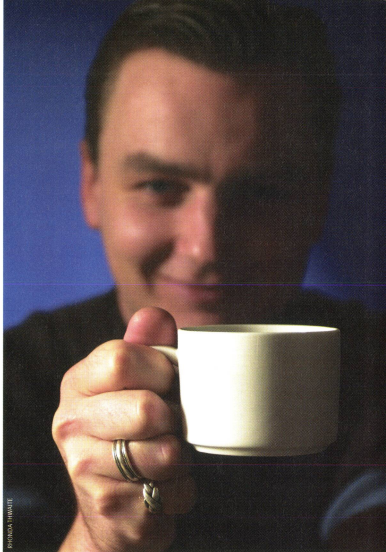
Instant coffee production starts by brewing very strong coffee. It's then made into instant coffee by either spray-drying or freeze-drying it.

Spray-drying is the older method. The concentrated coffee is sprayed as fine droplets into the top of the spray dryer. Hot air is pumped in and as the droplets move through the dryer, the water evaporates, leaving fine dried coffee powder.

To make **granulated** coffee (some manufacturers say consumers prefer its appearance to powder) another step is added, known as agglomeration — sticking small powder bits together to make larger granules. This process involves the use of moisture and high temperatures, which means that more volatile flavour and aroma compounds are lost.

WHAT TO BUY

Brand	Price (\$ per 100 g)
NESCAFÉ Gold Blend	\$6.00
MOCCONA Classic Decaffeinated	\$6.49
ROBERT TIMMS Gourmet Freeze Dried Presmoto	\$9.61
NESCAFÉ Gold Blend Decaffeinated	\$6.98
MOCCONA Classic Freeze Dried	\$5.98
NESCAFÉ Decaf	\$4.60
LYONS Decaffeinated	\$3.99



INSTANT COFFEE: which tastes best?

Our Home Tester panel slurped their way through 28 brands of instant coffee and came up with some clear winners — and some clear losers.

What the tasters said

NESCAFÉ Gold Blend

"Strong without being overpowering. Perfect in the morning to wake up to. Tastes of good quality. Would be happy to serve to visitors."
"This was a very pleasant coffee that entices several cups a day."

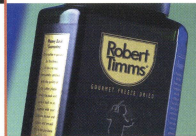


Moccona Classic Decaffeinated

"Almost like 'real' coffee (the stuff you make yourself with freshly ground beans)."
"One of the best instant coffees I've tasted. Full-bodied rich flavour."

ROBERT TIMMS Gourmet Freeze Dried Presmote

"Real flavour at last!"
"For instant coffee very flavoursome. Felt like I was getting a true caffeine hit."



HOW MUCH CAFFEINE IS TOO MUCH?

A strong cup of instant coffee (a heaped teaspoon) contains about 90 mg of caffeine, a weak cup about 45 mg. A medium-strength cup of tea contains around 40 mg.

Decaffeinated coffee contains so little caffeine there's as good as none.

Moderate consumption of caffeine — up to four or five cups of average-strength coffee a day — won't harm you. It can boost your mood, alertness and physical performance, and may even help prevent certain diseases. (For more on this see *Caffeine fix?*, CHOICE, June 2000.)

However, the news isn't good for everyone: heavy coffee drinkers, pregnant women and possibly people with heartburn, a breast lump or an anxiety disorder may benefit from cutting back.

For the average person eight to 10 cups of strong coffee (about 1 g of caffeine) a day is too much. You might experience a number of unpleasant symptoms like jitters, anxiety, agitation, light-headedness, rapid breathing and heartbeat, upset stomach, loose stools, heartburn and headache. You're also likely to suffer from withdrawal symptoms (tiredness and headaches) when you stop drinking coffee.

This might make you think powdered coffee should taste better than granular. But remember, the coffee beans used in the first place are important as well. Perhaps, because manufacturers think consumers like granular coffee better than powder, they dedicate better beans to the granular type.

■ The process of **freeze-drying** was developed after spray-drying. It takes longer and is a lot more expensive (the higher price). The liquid coffee concentrate is frozen at very low temperatures (about -45°C) and then ground up into the required size. The ice is removed by sublimation (a process where most of the air is pumped out and the ice crystals are transformed directly into gas without passing through the liquid phase). The theory is that this process maintains flavour compounds better, and our taste test results support it very well.

Decaffeinated coffee — is it safe?

A rumour's been going round for years that decaffeinated coffee has cancer-causing solvents left in it after processing. In the past it may have been true, but manufacturers now use different solvents. There are three main ways to remove caffeine from coffee; in all cases, it's extracted from the raw green coffee beans before roasting, which is where the coffee develops most of its flavour.

■ **Water:** Water saturated with coffee flavour (to minimise flavour loss) is used as a solvent to extract the caffeine from the green coffee beans. The water dissolves the caffeine while leaving flavour in the beans, which are then processed into instant coffee.

The water is pumped through a carbon filter that absorbs the caffeine, and it can then be used to decaffeinate the next batch of coffee beans. Some manufacturers use dichloromethane (see below) to remove the caffeine from the water, but the chemical is never in direct contact with the beans themselves.

Of the decaffeinated brands we looked at, the labels of NESCAFÉ Decaf, NESCAFÉ Gold Blend Decaf and INTERNATIONAL ROAST Decaffeinated say they use the water extraction method.

■ **Dichloromethane (chemical method):** It's this process that gets people worried — they're afraid the chemical solvent remains in the coffee after decaffeination. However, after soaking the green beans in dichloromethane to extract the caffeine, they're steamed for some time to remove any excess solvent. There's no evidence in any case that dichloromethane is harmful as used to make decaffeinated coffee.

Some manufacturers use an alternative solvent, ethyl acetate, which is claimed to be more 'natural'.

Chemical extraction is cheap and manufacturers who use this method believe it results in better-tasting coffee.

Of the brands we looked at, Moccona Classic Decaffeinated and Bi-Lo Decaffeinated say they're decaffeinated using dichloromethane.

■ **Carbon dioxide:** The caffeine is extracted by carbon dioxide held under high pressure so that it behaves like a liquid while remaining a gas. It's a highly selective solvent for caffeine that leaves no residue when the pressure is released. Of the brands we looked at, Lyons Decaffeinated is made using this method.



NESCAFÉ Gold Blend Decaffeinated

"A nice bite and very nice flavour. I would buy this coffee."
"Very light aftertaste, not strong at all. Tastes like there's no caffeine in it."

MOCCONA Classic Freeze Dried

"More complex coffee with a whole heap of flavours ranging from smoky/charred to earthy."
"Smells and tastes like a brewed coffee."



NESCAFÉ Decaf

"This one was a pleasant coffee that I would purchase. I enjoyed the full flavour and taste, a bit like a brewed drip coffee."
"Made a very refreshing cup of coffee."

LYONS DECAFFEINATED

"A good coffee flavour – leaves an earthy taste after drinking it."
"Very pleasant taste. No yucky aftertaste."



Brand	Type*	1	2	2	Price paid per 100 g (\$)
		Overall score (%)	Strength of aroma score (%)	Strength of flavour score (%)	
NESCAFÉ Gold Blend	FD	74	57	63	6.00
MOCCONA Classic Decaffeinated	FD	73	59	70	6.49
ROBERT TIMMS Gourmet Freeze Dried Presmolt	FD	71	64	69	9.61
NESCAFÉ Gold Blend Decaffeinated	FD	70	54	58	6.98
MOCCONA Classic Freeze Dried	FD	68	62	66	5.98
NESCAFÉ Decaf	G	64	57	60	4.60
LYONS Decaffeinated	G	63	56	64	3.99
BI-LO Decaffeinated	G	59	53	58	3.20
INTERNATIONAL ROAST Decaffeinated	P	59	57	62	4.25
ROBERT TIMMS Gourmet Granulated Molto	G	59	58	62	4.44
AURORA Café Classique Brazilian	G	58	64	70	3.00
BLACK & GOLD Granulated Instant	G	58	59	65	2.57
MAXWELL HOUSE Powder	P	58	48	51	2.34
PANTRY VALUE Granulated Instant (A)	G	58	57	60	2.29
MAXWELL HOUSE Granules	G	57	53	61	3.25
NESCAFÉ Blend 43	G	57	55	60	4.00
SAVINGS Decaffeinated	G	57	58	61	3.39
PABLO	P	56	46	53	3.23
LYONS Classic Roast	P	55	55	61	2.00
BI-LO Granulated	G	54	54	57	2.56
INTERNATIONAL ROAST	P	54	51	52	2.60
BI-LO Powder	P	52	42	48	1.65
BUSHELLS Powder	P	51	47	51	3.49
SAVINGS Granulated	G	51	56	54	2.58
BLACK & GOLD	P	50	44	45	1.70
HOME BRAND	P	50	55	60	1.47
SAVINGS Powder	P	49	44	47	1.47
ALCAFE Powder (A)	P	48	52	49	1.65

* FD Freeze-dried G Granules P Powder

(A) Available in Aldi only. Aldi is currently only operating in NSW but plans to expand nationwide.

BROUGHT TO YOU BY...

Our home testers truly are champions. Thanks... again. For this test 212 tasters lent us their palates.

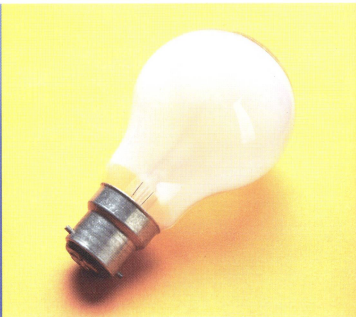
Each coffee was tried by around 50 trialists, and each taster tried eight anonymous brands, including a control – meaning that, without knowing it, they tried one brand twice. This is to see if they rate the coffee fairly consistently. If they didn't, they were eliminated from the final analysis.

Trialists drank one brand of coffee each day, moving onto a new brand the following day. They scored each coffee on the strength of the aroma and flavour and the pleasantness of the aftertaste, as well as giving an overall rating.



1 This score reflects how much the tasters liked the taste of the coffee overall.

2 These scores reflect the ratings given for the strength of the aroma and the flavour. A high score doesn't necessarily equate to a coffee being liked better overall, but you can use them to match your individual preferences for flavour and aroma.



LIGHT BULBS

IN A NUTSHELL

■ To get the best value for money, don't spend more than 50 cents on a standard bulb, or \$1 on a longer-life incandescent.

■ In some situations, you can replace an incandescent bulb with a compact fluorescent (long-life) one — it'll be cheaper in the long run, and better for the environment. For test results, see *CHOICE*, October 2000, or go to www.choice.com.au, type 'light bulb for \$25' in the search box, click on the 'premium' article and log in when requested.

WHAT TO BUY

STANDARD 1000-HOUR BULBS:

SAVINGS Light Globe*	\$0.47
THE PRICE BRAND Light Globe	\$0.48
FIRST CHOICE Premium Globe	\$0.44
NO FRILLS Light Globe	\$0.48

LONGER-LIFE BULBS (claimed 2500 hours):

OSRAM Softwhite Extra Life Lamp	\$0.85
PERFORMER Double Life Plus	\$0.99

* Now sold as the Reliance Light Globe.

These recommendations come from our 'value-for-money' index, based on the average hours of operation per dollar of purchase price — see note 1, far right, for details. Some of the bulbs in the *What to buy* list are technically the same as other, more expensive bulbs in the test; while these would last as long, their value for money isn't as good (see the table and footnotes for model details).

We compared a wide selection of standard and longer-life 60 watt incandescent light bulbs that are available in national stores.

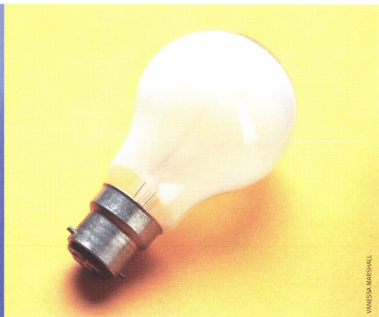
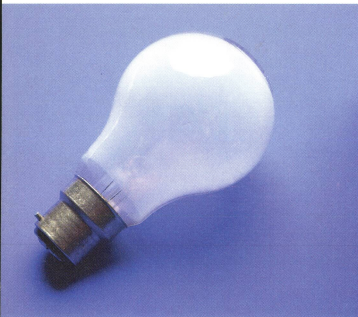
Standard incandescent bulbs are claimed to last for around 1000 hours, longer-life ones for about 2500 hours. The GE Softwhite Ultra is claimed to last 30% longer than a standard bulb, so for about 1300 hours. All the models lasted longer than their claimed life expectancy in our test.

NO-NAME VS BRAND NAME

Our test results show you can choose standard light bulbs by price. We found no general differences in light output, dimming or failure rate between no-name and brand-name products. Some no-name light bulbs are technically identical to brand-name ones, but usually cost much less to buy.

STANDARD VS LONGER-LIFE BULBS

While longer-life models lived up to their name and lasted much longer than standard models, they can be several times more expensive — so their purchase price determines whether they're worth buying.



VANESSA MARSHALL

No-name light bulbs are much cheaper than brand-name ones. And longer-life models are claimed to last more than twice as long as standard light bulbs. So which give you the best value for money?

Brand / model (ranked in order of value for money)	PERFORMANCE				SPECIFICATIONS			
	1 Value for money	2 Light output (in W) after			Claimed life (hours)	Origin	Manufacturer / distributor	Price (\$)*
		1 hour	750 hours	1500 hours				
SAVINGS Light Globe (A)	5	59	57	na	1000	Italy	Coles	0.47
THE PRICE BRAND Light Globe (B)	5	59	57	na	1000	Italy	Coles	0.48
FIRST CHOICE Premium Globe (C)	4	64	61	na	1000	Australia	Franklins	0.44
NO FRILLS Light Globe	4	64	61	na	1000	Australia	Franklins	0.48
OSRAM Softwhite Extra Life Lamp	4	54	54	52	2500	Australia	Rexel	0.85
PERFORMER Double Life Plus (D)	4	55	54	52	2500	Italy	Coles	0.99
GE Light Globe	3	60	56	na	1000	Indonesia	GE Lighting	0.73
MIRABELLA Elite 2500	3	55	54	52	2500	Italy	Mirabella	1.11
MIRABELLA Light Globe (B)	3	59	57	na	1000	Italy	Mirabella	0.65
GE Softwhite Ultra	2	58	52	49	1300	Indonesia	GE Lighting	1.05
HOME BRAND Light Bulb	2	63	60	na	1000	Australia	Woolworths	0.53
GE Longlife	1	58	56	54	2500	Hungary	GE Lighting	1.72
OSRAM Light Globe (C)	1	64	61	na	1000	Australia	Rexel	0.76
PHILIPS Classicline	1	63	61	na	1000	Australia	Philips Lighting	0.95
SYLVANIA Double Life	1	59	57	56	2500	Australia	Sylvania Lighting	1.60

* Based on a Sydney price survey in July 2001.

na Not applicable; it's a standard 1000-hour bulb.

(A) According to Coles, the name has been changed to Reliance Light Globe.

(B) This model wasn't tested, but is technically identical to the

Savings Light Globe, so should last the same length of time.

(C) This model wasn't tested, but is technically identical to the

No Frills Light Globe, so should last the same length of time.

(D) This model wasn't tested, but is technically identical to the Mirabella Elite 2500, so should last the same length of time.

1 Value for money

We distributed seven samples of each model randomly on our test rig. The test room was temperature-controlled and draught-free, and the voltage was stabilised. We tested the bulbs on a cycle of 165 minutes on and 15 minutes off, and monitored them daily for failures.

We then calculated the average hours of operation for each model, and (based on the bulbs' purchase prices in July 2001) a value-for-money index — average hours of operation per dollar: an index of 5 gives you the best value, an index of 1 the worst.

2 Light output

We measured the bulbs' light output after one hour of operation, after 750 hours, and for longer-life models again after 1500 hours.

Longer-life models tend to be a bit dimmer than standard ones when new. However, you're unlikely to notice the difference.

All the models dimmed to a certain degree over time, but again probably not enough to notice.

APPETISERS

Fruit and veg on prescription

Doctors in the UK are now prescribing fruit and vegetables to patients at risk of developing heart disease. They're given vouchers that can be redeemed for them, and are also placed on an exercise program.

CHOICE thinks this is a great idea to boost fruit and veg consumption among those who need to increase their intake the most, and could be a great preventative measure for our healthcare system to adopt.



VEGETABLES IN DISGUISE

Getting kids to eat vegies can be a feat worthy of a Nobel prize. But suggesting they eat these products, made from "nutritious vegies" hidden behind a "delicious crispy coating" isn't the answer. They might well prefer the 'vegetable bakes', for example, but with a fat content of 9.5% they're really not the way to go.

And they'll make the task of getting them to eat real vegetables even harder.

Instead you could try serving vegetables in fun shapes and sizes so kids find them more interesting, or with their favourite sauce to dip them into.

If they don't like a vegetable the first time, that doesn't mean they won't ever like it. Encourage them to at least try it now and again, but don't punish kids for not eating their vegies.



You were asking

If you have a food or nutrition-related question you'd like us to answer, please send it to *Appetisers* (see page 2 for contact details) or email appetisers@choice.com.au.

Unfortunately we can't respond to each one personally, but we'll do our best to answer the most interesting questions on this page.



The chocolate bar you need medical advice to eat...

...that your kids have ready access to.

The food industry seems obsessed with guarana and caffeine. We've already expressed concern about energy drinks and children (CHOICE, August 2001), and now Cadbury's released a new chocolate bar called **VIKING** that's marketed as an 'energy boost' — it contains guarana, a plant extract high in caffeine.

It contains 58 mg of caffeine and recommends a daily 'dose' of up to three bars. If you took this literally you'd be eating 174 mg of caffeine (equivalent to two cups of strong coffee) and almost 25 g (about 6 tsp) of saturated fat in a day.

There's a warning on the packet that it's not recommended for children under 15, pregnant women, nursing mothers or people sensitive to caffeine, and also a recommendation that it should be used under medical or dietician supervision — all hidden under the same flap as the recommended daily dose.

What child under 15 is going to take any notice of a warning on a chocolate bar — that's if they see it in the first place? And who'd expect to need medical advice before eating one?

WHAT'S HAPPENING WITH SOY SAUCE?

You probably heard in the media recently about the contamination of soy and oyster sauces with a chemical called 3-MCPD. The findings came from a study run by the UK's Food Standards Agency.

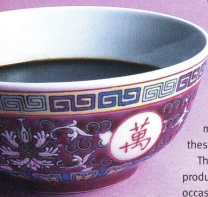
3-MCPD is a chemical from a group called chloropropanols, and it has the potential to cause cancer. It's produced by the addition of acid-hydrolysed vegetable protein to speed up the manufacturing process of these types of sauce. Sauces made by natural fermentation methods aren't affected and don't contain these chemicals.

The main concern is for people who use these products on a daily basis. If you only eat them occasionally you aren't likely to be affected.

As a result of the findings in the UK, our food regulator ANZFA began testing local and imported products on the Australian market. After the first round of testing, **GOLDEN MOUNTAIN Soya Bean Sauce (seasoning sauce)**, 740 mL and 200 mL, was recalled due to unacceptable levels of 3-MCPD. ANZFA has now conducted a second round of testing, which has resulted in a further product, **WANJASHAN Soy Sauce**, 500 mL, also being recalled.

All other soy and oyster products have been cleared of containing significant levels of the contaminant.

CHOICE would hope to see ongoing vigilant testing of these products to ensure they remain clear of this contaminant. However, if you're still concerned, stick to buying products that are naturally fermented, which will be stated on the label.



Are you drinking enough WATER?

With the heat of summer ahead of us, make sure you don't suffer the effects of dehydration.

Water is essential to life — it's possible to survive for more than 50 days without eating, but you can live only a few days without water. We're told to drink at least eight glasses of water a day to stay healthy. But is that really enough? And does it have to be water, or do other fluids count? What happens if we don't get enough — or too much? We investigated.

Why it's important

Our bodies consist mainly of water — 50–80% of your total body weight is water. Women typically have lower average body water content than men because they tend to have more body fat, which contains less water than muscle tissue.

And water is vital to all sorts of bodily functions. One key fluid — your blood — helps transport essential nutrients and oxygen around your body. Other fluids act as a lubricant for joints and eyes, help you swallow, act as a cushion for your nervous system, and help with waste disposal. On top of all that, water serves to regulate your body temperature — you sweat when you get too hot.

There are other ways in which water contributes to good health:

- It maintains the health of your kidneys by helping flush toxins and body waste through them.
- It reduces the risk of stones in your urinary tract (kidney stones or bladder stones).
- Some preliminary research has shown that drinking plenty of fluid (particularly plain water) can reduce the risk of cancers of the colon and urinary tract (including kidneys and bladder) and breast cancer. However, more research is needed before definitive conclusions can be drawn.



■ It's thought that drinking more water (but not fatty or sugary drinks) could help prevent childhood and adolescent obesity, partly because it creates a feeling of fullness and also because people sometimes mistake feeling thirsty for feeling hungry.

How much should you drink?

Your body continually loses water: in urine and faeces, through your skin and from the lungs (when you breathe out). This means you need to top up levels on a regular basis and drink enough to replace what's lost.

Without perspiration, the normal daily turnover of water in adults is about 4% of body weight, which is 2.8 litres for a 70 kg person. However, the amount of fluid lost will vary from person to person because we're all different — it

IN A NUTSHELL

■ You need about 2–3 L of water per day to stay healthy — more if it's hot, you're sick, you're exercising or working in air conditioning.

■ Thirst is an emergency response — by the time you're thirsty, you're already dehydrated.

■ There are many potential sources of water in our diet — soft drinks, tea and many foods contribute to your daily water quota, as the table on page 19 shows.

■ Alcoholic drinks are diuretic (they make you urinate more) — and if they're stronger than 10% alcohol, you'll lose more water than you take in.

PEOPLE AT RISK

The very young and the elderly are at greater risk of dehydration than most other people. It can result in heat stroke (extremely high body temperature) or heat exhaustion (excessive water and salt loss through sweat).

- Babies and children up to four years of age are too young to respond to their bodies' needs, and are particularly sensitive to the effects of high temperatures. Compared with adults, daily water loss is much greater in infants, at 15% of body mass — that's about 1 L for a 7 kg baby.
- While pregnant women require only an extra glass or so of water per day, nursing mothers need an extra 750–1000 mL above the basic recommendation.
- Elderly people lose some of the sensation of thirst, so may not drink enough water to avoid becoming dehydrated. Another issue that adds to the risk is the inconvenience and embarrassment caused by incontinence and the need for frequent urination (people have been known to drink less than they should to avoid these problems).

will depend on your own particular metabolism, your state of health, your diet and how much exercise you do, for example.

According to a review published in the *Journal of the American Dietetic Association*, the average sedentary man should consume at least 2.9 L of water a day, and the average sedentary woman at least 2.2 L per day. About one third of this will come from food. In terms of how much you should actually drink, the Dietitians Association of Australia recommends the average adult drinks at least eight glasses (2 L) of fluid per day — more during hot weather and physical activity.

This doesn't mean drinking glass after glass of plain water: there are plenty of other sources of water in your diet — see *Sources of water*, right, for more. However, it's recommended your daily quota is made up of plenty of water: apart from anything else, it's best for quenching

your thirst, is cheap (or free) and contains no calories.

Drink more water if any of the following applies:

- You're exposed to high temperatures.
- You're carrying out strenuous work or physical activity — also see *Water when you're exercising*, below.
- You're exposed to air conditioning or heating for long stints.
- You're pregnant or breastfeeding.
- You've got a fever, diarrhoea or been vomiting.

Sources of water

If you're not a big fan of plain (or even soda or mineral) water, the good news is you can meet your daily quota from a variety of different sources — both foods and drinks.

- Fruit juice, cordial, soft drink and milk contain plenty of water, although if you drink over 2 L of these each day, you may be getting too much sugar and/or fat.
- Although caffeine is a mild diuretic, evidence seems to be emerging that, for tea and coffee at least, the diuretic effect appears to be minimal if you drink them regularly and in normal strengths.
- Alcohol is a stronger diuretic: as a rough guide, for every 1 mL of pure alcohol you drink, you lose 10 mL of water in urine. So, if you drink a 125 mL glass of red wine (12.5% alcohol) you'll lose about 150 mL of water — a net water loss. If you drink full-strength beer (5% alcohol), you'll lose about half the water, but the other half contributes to your daily water intake.
- Food also contains water, from fruit and vegetables to chips and hamburgers. See *Water in your diet*, right, for some sources.

If you don't get enough?

A whole range of body processes works to keep your fluid levels relatively stable — the thirst mechanism and kidney

WATER WHEN YOU'RE EXERCISING

When you're losing water rapidly, as you do when carrying out strenuous physical activity, you could already be dangerously dehydrated by the time your thirst mechanism kicks in.

A water loss of only 1% of body weight can impair physical and sporting performance during exercise, while a loss of 3–5% can diminish performance by around 20%. Apart from making you feel light-headed and nauseous, dehydration also increases muscle glycogen use, so you get tired faster.

Experts recommend:

- You hydrate yourself two hours before exercising by drinking 400–600 mL — this allows

time for adequate hydration and excretion of excess water.

- Drink sufficient fluid *during* exercise to prevent dehydration from exceeding 2% of your body weight: small amounts (150–300 mL) every 15–20 minutes should do the trick.
- To make sure you fully rehydrate *after* heavy exercise, weigh yourself before and after, and make up the weight loss in water.
- For exercise that lasts less than 90 minutes, plain water is fine. For longer periods of exercise, a sports drink with glucose and electrolytes added may be beneficial.



function are just two. Generally, your total body fluid levels vary by less than 1%, regardless of fluctuations in what you drink. But there are dangers if you persistently drink too little.

It takes only small changes in your overall fluid levels to destabilise your system and bring about the symptoms of dehydration — as little as 1–2% of your body weight can do it. If you were 20% or more dehydrated, you'd die.

Early signs of dehydration include headaches, fatigue, loss of appetite, flushed skin, heat intolerance, light-headedness, dry mouth and eyes, a burning sensation in the stomach and dark urine with a strong odour.

If dehydration becomes more advanced, you may get symptoms such as difficulty swallowing, clumsiness, shrivelled skin, sunken eyes and dim vision, painful urination, numb skin, muscle spasms and delirium.

Of course long before these things start happening, a powerful thirst should kick in and persuade you to drink. And your kidneys are super-efficient at regulating water — if things get desperate, you'll probably stop urinating.

If you're not sure whether you're getting enough water, a simple way to check is to keep an eye on the colour of your urine. It will be yellow first thing in the morning, but should become paler by mid-morning. If it doesn't, you're not drinking enough.

Don't wait till you get thirsty to drink: thirst is actually an emergency response — you don't become thirsty until you're already dehydrated. The typical symptoms, such as a horrible taste, dry throat and cravings for cool wet liquid, are physiological responses your body uses to signal its dehydration.

Too much water

It's possible to drink too much water. Your body's fluid balance can be dangerously upset if you drink more water

than your kidneys can excrete. Your body cells swell, and you may feel drowsy, weak and suffer convulsions.

You'd need to drink more than six litres over a short period of time for this to be a danger, and you'd probably make yourself sick in the process. But it does happen: for example, several people have died from drinking too much water after taking the drug ecstasy.

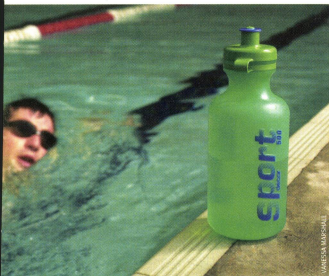
Water in your diet

The table shows typical figures for the water content of a range of common drinks and foods. It should give you some idea of good (and less good) sources of water in your diet.

Food / drink	Portion size	Water (mL)
Water (A)	250 mL	250
Soft drink	250 mL	235
Cordial (diluted)	250 mL	235
Orange juice	250 mL	230
Coffee (black)	240 mL (1 mug)	240
Coffee (white)	240 mL (1 mug)	235
Tea (black)	240 mL (1 mug)	240
Tea (white)	240 mL (1 mug)	235
Beer (lager)	375 mL (1 can / stubby)	350 (160) (B)
Beer (reduced alcohol, 2%)	375 mL	360 (260) (B)
Red wine	125 mL (1 glass)	110 (–40) (B)
White wine (dry)	125 mL (1 glass)	110 (–35) (B)
Apple	155 g (1 medium)	130
Banana	140 g (1 medium)	105
Watermelon	195 g (one cup)	180
Boiled potatoes	100 g	80
Roast potatoes	100 g	65
Baked beans	100 g	75
Cheeseburger	115 g	50
Meat pie	190 g	100
Hot chips	100 g	50
Macaroni cheese	300 g	200
Vegetable soup	300 g	270
Roast beef	200 g	130
Cheddar cheese	50 g	20
Cottage cheese	50 g	40
Milk (reduced-fat, or 'Lite')	200 mL	180
Yoghurt	200 g (1 pot)	165
Bread	30 g (1 slice)	12
Toast	27 g (1 slice)	7

(A) Includes tap water, soda water and mineral water.

(B) The figure in brackets is a rough estimate of the net water gain or loss, after taking into account the diuretic effect of alcohol.

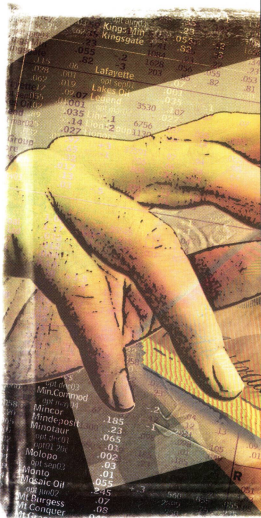


Invest with OTHER PEOPLE'S MONEY?

Borrowing to invest can help make your money work harder. But margin loans can be risky and there are a few traps. Here's how to make them work for you.

IN A NUTSHELL

- Borrowing to invest** – for example, a margin loan – can be a very effective strategy to build up your wealth, but it's not for everyone: you need to have excess income, be a savvy investor and happy to take risks.
- Be aware of the current volatile share market environment, get financial advice and have a strategy in place for meeting a margin call** (see page 23).
 - We found some tough conditions in margin loan contracts.** For example, if the security for your loan drops to less than the amount of the loan, your lender may sell the investments without even getting your OK.



TIP:

You might have taken part in some of the big floats and own shares such as Telstra, Commonwealth Bank and Woolworths.

That means you might be sitting on a large but poorly diversified portfolio. If you sold your shares you might have to pay capital gains tax, so instead you could use them as security for a margin loan and buy some other shares or managed funds to give you a better range of investments.

A margin loan allows you to borrow money to invest. For a short summary of the essential features of this form of borrowing, see *Margin loans in profile*, far right.

It's similar in some ways to a mortgage secured against your home:

- The margin loan is secured against the investment you make with it and/or other investments you have.
- You can't borrow the full amount, but only a percentage of what you invest the money in, called the investment's loan to value ratio or **LVR**: it's usually 30% to 70% for shares, managed funds and other securities. The **LVR** determines how much money the lender will loan you against the security. For example, if your lender sets the **LVR** for an 'Xbank' share at 70%, it'll lend you \$70,000 to buy \$100,000 worth of those shares.

So by investing just \$30,000 of your own money you could build up a portfolio worth up to \$100,000, investing in shares spread over different share market sectors and managed funds.

Because you've more money to invest, your investment gets a 'turbo boost' and gains are magnified. But if your investment loses money, not only have you made a loss but you still have to pay back the loan. (See Table 1, right, for the magnified effect on gains and losses.)

It's therefore advisable not to borrow up to the limit: for example, if you only borrow 50% of the value of an investment whose LVR is 70%, you're in a much less vulnerable position (see Table 2, page 23).

The taxman helps

Borrowing money to invest is called **gearing**. The main tax advantage is that you may get a tax deduction for the interest you pay on your loan and other loan costs. Some loans allow you to prepay the interest in June so you can make use of the tax deduction right away.

If your investment makes a loss — for example, if you pay more interest on the loan than you've received as income from the investment (for example, dividends) — this is called **negative gearing**.

This loss is usually tax-deductible: the tax office helps to pay for your investment. However, taxation laws are complex and the tax you'll pay depends on your personal circumstances, so you need tailored advice. The tax office can also give some advice: contact it on 13 26 81 or www.ato.gov.au.

Don't let tax advantages cloud your judgment. Assess the investment on its own merits and treat tax advantages as a bonus.

Even given the tax benefits, negative gearing



Table 1: A margin loan gives your money a 'turbo boost' — gains and losses are magnified

	Own investment + margin loan	Own investment only
Your own money	\$30,000	\$30,000
Loan amount	\$70,000	Not applicable
Value of portfolio	\$100,000	\$30,000
What happens if your portfolio rises in value by 10%?		
Value of portfolio	\$110,000	\$33,000
Loan outstanding	\$70,000	Not applicable
Investment value	\$40,000	\$33,000
% gain*	33%	10%
What happens if your portfolio falls in value by 10%?		
Value of your portfolio	\$90,000	\$27,000
Loan outstanding	\$70,000	Not applicable
Investment value	\$20,000	\$27,000
% loss*	-33%	-10%

* Of the initial investment of \$30,000.

This table isn't a realistic demonstration of margin lending — for example, it uses an extremely high, very risky level of borrowing. It just demonstrates the concept and shows how gains and losses are magnified. Interest paid, tax deductions and income earned (such as dividends) aren't taken into account.

Margin loans in profile

It usually works like a line of credit: you can make repayments and draw funds as you like.

LENDERS:

Margin loans are offered by banks, credit unions, brokers and fund managers.

INTEREST:

- There's usually a choice between variable and fixed interest rates; split loans are available.
- The variable rate is around 1% above the standard home loan rate.
- There's usually no minimum monthly repayment — the interest can be added to the loan instead. However, see *How to reduce the risks*, page 22, for why this might not be the best strategy.

FEES:

- Usually no application and account-keeping fees; transaction and low-balance fees may apply.
- Other costs may apply, such as brokerage fees or stamp duty for the loan.

APPLICATION:

- A credit check and income statements aren't usually necessary.
- Approval is usually within 24 to 48 hours.

ACCOUNT INFORMATION:

Monthly statements, online or phone information.

SECURITY:

Each lender has an 'approved list' of shares, managed funds and other securities and their loan to value ratios (LVR — see page 20). Only investments from this list can be used as a security for the loan.

FINANCIAL ADVICE:

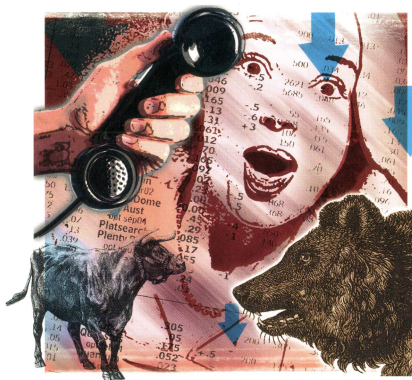
- You need to get your own advice on which investments to choose.
- The LVR isn't a recommendation — simply because a stock has a high LVR doesn't mean it's a good investment, and vice versa. To set the LVR the lender looks at how easily high volumes of the shares could be sold even in a falling market. Major companies like the big banks or Telstra, for example, would therefore always have a very high LVR, irrespective of the lender's current buy/sell recommendations for them.

still means you make a loss. This only makes sense if ultimately your investment gains in value and you come out on top when you sell it.

So far, so good: other people's money works for you, and you may save on tax — so why should you be wary of margin loans?

The margin call

The reason margin lending can be risky is because your investment (for example, the shares you bought) is the security for the margin loan and its value varies on a daily basis. If the share market takes a nosedive you might suddenly no longer have enough security for your loan. The lender will usually allow you a buffer of 5–10% of the percentage of the investment that you've borrowed (called your 'gearing level'), so you don't need to worry about smaller variations. However, as soon as your investment falls so much that your



SIMON BOSCH

gearing level is above the buffer, you'll receive what's known as a **margin call**.

Your lender will ask you to repay part of your loan or top up your account with some other security, such as other shares you might have. If you can't do this, you might be forced to sell part of your investment.

This is where you can lose quite a lot of money, as you'll probably be selling in this year's June quarter — if you're really unlucky, fire-sale prices may apply. See *How to meet a margin call*, far right, for more.

How to reduce the risks

Especially with the current volatility in the share market, it's essential to try to reduce the likelihood of a margin call and to have a strategy in place in case it happens. And don't think it's unlikely: current Reserve Bank figures show that in this year's June quarter, there were 19,000 margin calls, compared to a total of just under 95,000 margin loans.

The most effective strategy is to reduce your borrowing level. *How to meet a margin call* explains the consequences of falls in your investment's value if you've borrowed up to the limit, and Table 2 (below right) shows how a lower borrowing level can reduce your risk. It also reduces the interest you pay, so that dividends and other investment income might even cover the costs.

Is it suitable for you?

Borrowing to invest is a high-risk strategy, so look first at your current investments and objectives:

- Could you save more — maybe committing yourself to a savings plan making regular contributions into managed funds?
- Could you structure your investments better — perhaps by taking money out of term deposits and instead investing in growth assets like shares or managed funds?

If you can reach your goals without borrowing to invest, the gains you could make may not be worth the risks you would have to take.

IF YOU THINK IT'S WORTH A TRY...

The advantages of a margin loan over investing in property are that the investments are more flexible, it's easier and cheaper to buy and sell, and you can start with a small portfolio.

However, margin lenders won't give you any advice about which shares to pick. You need to be a savvy investor or get good advice from your adviser or broker to find a good investment in the current volatile share market climate.

Before committing yourself to a margin loan, ask yourself if you have:

- Enough excess income to cover the interest payments, even if the interest rate suddenly goes up or your investment makes a loss.
- A long-term investment perspective and the ability to cope with making a loss for some time.
- A secure job — or could you cover the interest payments if you lost it?

On a different level, do you have the temperament to cope with the ups and downs of share market investments?

If you decide to go for it, consider getting professional financial advice and taking out insurance: income protection in case you can't work because you're sick, and life insurance to cover your dependants.

RISKY BUSINESS

Before taking out a margin loan, read your loan contract carefully. When we looked through some contracts we found some pretty hard bargains in them. Some of them are:

- **The lender can change the LVR at any time:** The LVR determines how much money the lender will loan you against the security. For example, your lender may set the LVR for an 'Xbank' share at 70%, so if you lodge \$10,000 worth of Xbank's shares as a security, you get \$7000 to buy some other investment. However, if your lender changes the LVR for Xbank to 60%, you've borrowed \$1000 for which you no longer have any security, and will receive a margin call. Even worse, your lender might decide to take Xbank's shares from its approved list altogether, meaning your whole loan is immediately in default.
- **The lender can sell your investments without your go-ahead:** Margin lenders stress that it's your responsibility to monitor your account and act as necessary. Although your lender will usually try to contact you in a margin call situation you can't rely on this alone.
- **Also check the following conditions:**
- **Margin call:** If you receive a margin call, do you only

Other things to consider are:

- **Pay interest regularly.** Margin lenders allow you to add the interest to the loan, but of course this simply increases it and thus your borrowing level.
 - **Credit your investment income** (such as dividends) to your loan, or at least reinvest it.
 - **Closely monitor your investments and your borrowing level**, so that you can intervene (for example, by paying back part of the loan) before it comes to the margin call.
 - **Diversify your portfolio.** If you only buy shares in one company your investment will be very volatile. By diversifying your portfolio into shares from different sectors and managed funds, you decrease this volatility and might have a better return in the long term.
- Have a strategy in place for meeting a margin call. You need:
- **Additional cash or security**, such as shares or managed funds on the lender's approved list, and/or
 - **A priority list of which investments to sell** if necessary.
- Make sure your lender can always contact you or another nominated person you trust, even when you're on holiday or have other commitments. You have to respond quickly to a margin call (usually within 24 hours). If your lender can't contact you, it'll make the decision for you. ■

need to get the amount you've borrowed back within the buffer (for example, 5% over the agreed borrowing level) or right back into the agreed borrowing level? If you're stretched for cash this difference can mean you have to sell some of your investments. Also check whether you'll be charged extra interest while your loan is in default.

- **Prepaid interest refundable?** If you want to prepay the interest (see *The taxman helps*, page 20), check what happens if you want to pay the loan back early. You may only have to pay a fee, but some contracts specify that prepaid interest is non-refundable.
- **Minimum loan balance/minimum interest cost?** Some lenders have a minimum loan balance on which you pay interest even if you've actually borrowed less. Or, instead, a fee may apply if you borrow less than a minimum balance — this may apply only for a time or during the whole contract.
- **Minimum period on variable rates?** Some lenders have a minimum borrowing period even if you're on a variable interest rate, so if you change your mind and want to get out of the loan within that time, you'll have to pay an early repayment fee.

TIP:

Have you already paid off a big chunk of your mortgage? If so, a home equity loan/line of credit may be a better way for you to borrow to invest, as the interest rate is generally cheaper. However, the same risks apply as with other forms of borrowing, and your house is on the line too.

How to meet a margin call

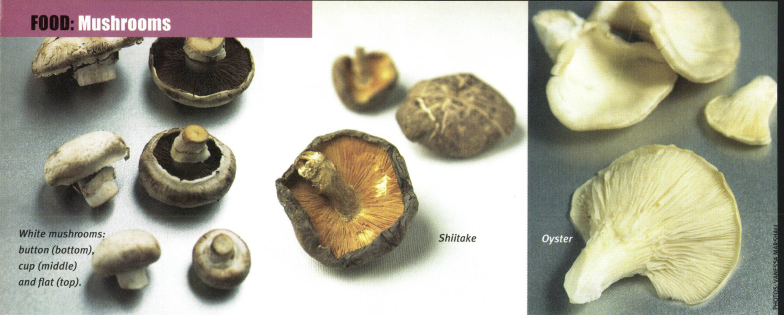
In our example, you've invested \$30,000 of your own and borrowed up to the limit, taking a loan of \$70,000 to buy \$100,000 worth of shares with an LVR of 70% (see page 20 for an explanation of LVR). How can you meet a margin call if your portfolio value falls by 10% to \$90,000 and your contract specifies that you need to restore the loan to its original gearing level (the percentage of the investment you borrowed)?

- **Pay back part of the loan:** a portfolio worth \$100,000 allowed you to borrow \$70,000 (70%). As your portfolio is now worth only \$90,000, you can now only borrow 70% of that, which is \$63,000. So you need to pay back **\$7,000 in cash**.
- **Lodge some more shares as security:** you need to restore the value of your portfolio to \$100,000. In a best-case scenario you have some more shares with an LVR of 70%: you need to **lodge shares worth \$10,000**. If your lender doesn't have your shares on its approved list, you can't lodge them at all. But if their LVR is only 30%, you have to lodge **shares worth \$23,333**.
- **Sell part of your portfolio to pay back into the loan:** in this case you need to **sell about \$23,350 worth of shares**. This leaves you with an investment worth \$66,650 and a loan of \$46,650 (about 70% of \$66,650).

Table 2: Fall in investment value (%) before a margin call

Your borrowing level (%)	Loan to value ratio (%)				
	70	60	50	40	30
70	6.7				
60	20.0	7.7			
50	33.3	23.1	9.1		
40	46.7	38.5	27.3	11.1	
30	60.0	53.8	45.5	33.3	14.3
20	73.3	69.2	63.6	55.6	42.9
10	86.7	84.6	81.8	77.8	71.4

Table 2 shows by what percentage the value of your portfolio needs to fall before you'll receive a margin call; we've assumed a 5% buffer margin. Many margin lenders advise their clients to have a maximum gearing level of 50% (in the case of an LVR of 70%). If you take this advice, your investment needs to fall by a third of its value before you receive a margin call. If you take the maximum loan, a fall of only 6.7% in its value would result in a margin call.



White mushrooms:
button (bottom),
cup (middle)
and flat (top).

Shiitake

Oyster

MUSHROOMS

With so many varieties, which do you choose and how do you know which ones are safe?

MUSHROOM FACTS

- Mushrooms belong to a group of organisms called fungi, which also includes truffles, toadstools and yeast; even *tinea* (athletes' foot) is a type of fungus.
- More than 2000 forms of mushroom are edible, but there are also many that are toxic and many we know nothing about.
- The part we eat is the fruiting body of the mushroom. The roots produce it to spread microscopic reproductive spores.
- Mushrooms don't contain chlorophyll like most plants, and obtain their nutrients solely from the organic matter they grow in.

You either love them or hate them, and you'll find them everywhere from pizza to salad. Here's a rundown of the different varieties and what to use them for.

VARIETIES

Different types of mushroom are becoming common in the fruit and vegetable section of supermarkets, or else you'll find them either canned or dried.

■ **White mushrooms:** These are the most common cultivated mushroom. They're available in three stages of growth: **buttons**, which are small unopened mushrooms (also known as champignons); **cups**, which are buttons that have been allowed to grow until the cap has begun to open and the gills can be seen; and **flats**, which are cups that have expanded until all the gills are visible. Buttons and cups can be used raw, while all can be cooked. The more open the cap is, the more intense the flavour will be. The flavour is also intensified if they're cooked. They're used in salads, casseroles and pasta dishes, or can be sautéed in a little oil or butter.

■ **Shiitake mushrooms:** Originally found on the logs of oak trees, they're now widely commercially cultivated. The gills are cream-coloured and the caps dark brown, and the fresh mushrooms should be firm and dry; you can also buy them dried or frozen. The shiitake has a strong, meaty flavour and can be fried,

grilled, sautéed or used in soups and casseroles. Remove the stems before cooking, as they're too tough to eat.

■ **Oyster mushrooms** vary in colour from grey to salmon pink. They have a mild, peppery flavour and are good grilled or cooked in a little oil and served with chicken, pork, veal or seafood. They can also be added to soups and sauces, or sautéed with butter and onions.

■ **Paddy straw mushroom:** Also known as Chinese mushrooms, they're grown in subtropical areas, and are generally available dried or canned. They're commonly used in Asian meals.

■ **Morels** are hollow, sponge-like, cone-shaped mushrooms. They're generally light to dark brown but can sometimes be black or white. They're used widely in French cooking and have a rich nutty flavour; you could also use smaller ones in sauces and soups.

■ **Field mushrooms** are generally found in paddocks where livestock have been grazing, usually after a period of wet weather. They have a cream-coloured cap and deep pink gills, which become dark brown and then black as they age. They have a very strong flavour and are good sautéed in oil or butter, or grilled with a topping like parsley, garlic, olive oil and lemon juice.

■ **Enoki mushrooms** have long stems with a tiny white cap. They have a crunchy texture and are commonly used in Asian soups; they can also be used in sandwiches or salads.

■ **Wood ear:** Similar in appearance to a frilly piece of black rubber, they're used mainly in Asian stir-fries, casseroles or sautéed in butter or oil. They have a silky texture and earthy flavour.

■ **Swiss brown:** A variety of white mushrooms and similar in appearance to them, only a milky brown colour. They have a firm texture and strong flavour, and are best used in place of cultivated white mushrooms, or added to beef, game or vegetable dishes.

■ **Shimenji:** A Japanese wood mushroom with a fleshy texture and subtle sweet, nutty flavour, they're grey to off-white in colour. Use them in stir-fries, stews or salads.

■ **Portobello:** A larger version of the Swiss brown mushroom, it's grown for longer than the white cultivated mushroom, and has a more intense, meatier flavour. They can be served grilled or baked, added to stir-fries or used in sandwiches.

■ **Cepes/porcini:** Light brown with a smooth texture and an earthy flavour. They can be sliced and served with a little butter or oil or, because they're usually available dried, can be added to casseroles or other cooked dishes.

NUTRITION

Being a fungus rather than a vegetable, mushrooms are nutritionally different. They're significant sources of B-complex vitamins, including riboflavin, niacin, pantothenic acid, biotin and folic acid.

You may hear that some mushrooms also contain Vitamin B₁₂, which is usually only found in foods from animal sources. It's mainly present in the stems because it comes from the compost in which mushrooms are grown. Unfortunately, though, it's not thought to be in a form the body can easily use.

Mushrooms are also low in fat (less than 1%), and a source of protein and fibre.

HOW TO STORE AND PREPARE THEM

Look for mushrooms that are firm and smooth and free from blemishes or slime. They're best used as soon as possible after buying, but should last up to five days if stored correctly.

Keep them in the fridge's crisper in a paper or cloth bag. Don't store mushrooms in a plastic bag, as this will cause condensation and speed the spoilage process.

Freezing mushrooms isn't recommended, but if it's necessary, sauté them first in butter or oil, let them cool slightly and store them in an airtight container for no longer than a month.

Most mushrooms shouldn't need to be washed or peeled — just wipe them with a damp cloth or paper towel. The exception is field mushrooms that you've picked yourself, which should either be cleaned thoroughly or peeled.



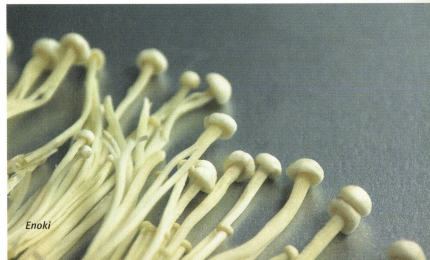
Paddy straw



Morel



Field



Enoki



Wood ear



Swiss brown



Shiitake



Portobello



Ceps/porcini

IF YOU'RE NOT SURE WHAT IT IS – DON'T EAT IT

Many people enjoy 'mushrooming' after a bout of wet weather. It provides the perfect growing conditions for mushrooms, and earlier this year the Melbourne Royal Botanic Gardens had to issue a warning not to eat wild mushrooms after a wet spell in Victoria.

Many poisonous mushrooms (generally referred to as toadstools) are potentially fatal or can make you very ill. So unless you're confident about identifying mushrooms, never pick them if you see them growing wild. And don't rely on identifying mushrooms from a European book, as many Australian species may look similar, but are in fact toxic.

If you're not an expert in mushroom identification there are generally no easily recognisable differences between poisonous and non-poisonous species, and unfortunately there are no guidelines for distinguishing edible mushrooms from poisonous toadstools. There are hundreds of mushroom varieties we still don't know much about.

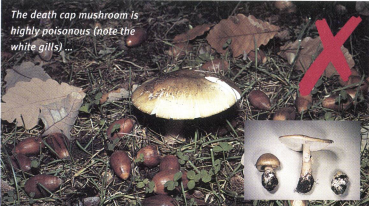
The toxins in most mushrooms that cause human poisoning aren't destroyed by cooking, canning, freezing or any other means of processing.

Some of the more well known varieties responsible for poisonings are members of the amanita family, including the death cap mushroom, commonly found around Melbourne and Canberra. In 1995 a Canberra man died from liver failure six days after eating one — just one mushroom can contain a lethal dose of the toxin. It grows primarily near oak trees, and the cap is usually a pale yellow or greenish colour, with white gills and a ring on the stem; there's also a membranous cup at the base of the stem.

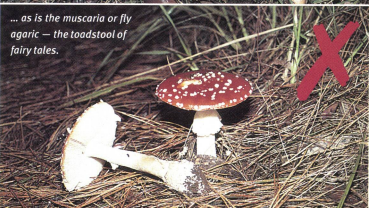
Another member of the amanita family is the muscaria or fly agaric mushroom, commonly depicted in children's books and fairy tales, which is also highly poisonous.

If you don't know whether a mushroom is edible or not, stick to buying them at the supermarket or greengrocer's.

If you'd like to find out more about mushrooms and identifying different species, try www.calcite.apana.org.au/fungimap.



The death cap mushroom is highly poisonous (note the white gills) ...



... as is the muscaria or fly agaric — the toadstool of fairy tales.

LARGE CAR = safe car?

The latest round of crash testing shows the safety of Aussie family sedans still lags behind (more expensive) European models.



The Australian New Car Assessment Program (ANCAP) consists of two main crashes:

- **Offset crash:** The car is crashed at 64 km/h into a fixed barrier with a crushable aluminium face. Only 40% of the car's front (on the driver's side) hits the barrier.

- **Side-impact crash:** A 950 kg trolley is run into the driver's side at 50 km/h. For the first time, models that rated well in the side-impact test (usually if they have a side and/or head airbag to protect the driver's head) were eligible for an optional **pole test**, which can earn them additional points. This test simulates a vehicle sliding sideways into a pole at 29 km/h — a severe test of the car's structure and occupant protection. The four European cars (see below) underwent this test.

A **pedestrian impact test** estimates injuries to pedestrians struck by a vehicle travelling at 40 km/h.

WHAT'S ASSESSED

The **overall rating** (see the table) is based on assessments of the car's **structure** and **restraint** system, as well as measurements of **injury risks**. The pedestrian rating isn't part of the overall rating.

Crash test results are only comparable for vehicles of similar weight — as a guide, cars have to be within 230 kg of each other.

Safety

- The passenger compartment should keep its shape.
- The steering column, dashboard, roof, roof pillars, pedals and floor panels shouldn't be pushed too far inwards, so there's less risk of injury.
- Doors should remain closed during the crash (so occupants can't fall out of the car), yet be easy to open afterwards (so occupants can get out or rescuers in).

Restraint system

- The seat, seatbelt and — if fitted — the airbag(s) are supposed to keep the occupants inside the car, protect them from contact with hard car parts (such as the steering wheel, dashboard or windscreen), and spread the force of the impact over body parts that can cope best.
- Crash test dummies are painted with paint that rubs off on contact. This, together with a slow-motion video of the crash, shows whether any body parts hit part of the car.

Injury risk

- Crash test dummies representing an average adult male driver are fitted with sensors that measure the forces and movements likely to injure the head, chest, and upper and lower legs. In the offset crash, there's also a passenger dummy.
- The results for head and chest injuries are combined to indicate the risk of life-threatening injuries.

IN A NUTSHELL

- Side and head airbags offer superior protection in side-impact crashes.
- The **RENAULT Laguna II** achieved the highest rating ever in the current test program.

MORE RESULTS

For detailed results from this latest round of ANCAP testing, as well as the results for all the cars crashed since the start of the program, go to www.choice.com.au and type 'crash tests' in the search box.

Make / model / year (airbags) ranked in order of overall rating	Overall rating (%)	Pedestrian rating (%)	Weight (kg)
Renault Laguna II , 2001 on (dual, side, head) (A)	97	33	1390
Saab 9-5 , 1997 on (dual, side, head) (A)	90	34	1490
Volvo S80 , 2000 on (dual, side, head) (A)	86	40	1485
Mercedes E200 , 1999 on (dual, side, head) (A)	76	48	1440
Ford Falcon AU II , mid 2000 on (dual)	71	34	1550
Toyota Camry , 2000 on (driver)	64	43	1420
Toyota Avalon , 2001 on (dual)	52 (B)	38	1500
Holden Commodore VX , 2000 on (driver)	51	39	1560
Mitsubishi Magna , August 2001 on (driver)	51 (B)	35	1480

- (A) This model was tested by Euro-NCAP, which uses the same high-speed crash test format as ANCAP. However, the results should be used as a guide only. While the testing procedures are essentially the same, the structure (for example, left-hand versus right-hand drive) and safety equipment of models may vary, so models sold in Australia may provide slightly different levels of safety from those described here. The European models have the extra safety of a head airbag, which drops from above on the driver's side.
- (B) High risk of life-threatening chest injury in side-impact test.



SUSPECTIVE IMAGES

VACCINATING your child

Vaccination rates are on the rise, but some diseases are still a problem in Australia. And there are controversies surrounding some vaccines: what are the facts?

IN A NUTSHELL

■ Nearly 5000 children in Australia contract diseases each year that can be prevented by vaccines. Almost 1000 suffer badly enough to need hospitalisation, and at least five die.

■ The good news is that Australian vaccination rates are on the rise, yet two diseases are presenting new problems: whooping cough and measles. They aren't only affecting young children: adolescents and young adults are at risk, too.

■ Worried about getting paralysed by the polio vaccine? The risk is real, but very, very rare.

While the number of children in Australia who get a disease that can be prevented by a vaccine still seems high (see left), the rates have improved dramatically over the past decade. Before figures were recorded nationally in the mid 1990s, it was estimated that only about half our children were fully immunised — and almost twice as many suffered from preventable diseases.

According to the latest statistics, 87% of one-year-olds and 75% of two-year-olds in Australia were fully immunised at the end of the 1990s. These increasing vaccination rates are reflected in much lower rates of various previously widespread childhood diseases.

The Australian Standard Immunisation Schedule for children from birth to age four

includes vaccinations to protect against nine diseases: hepatitis B, diphtheria, tetanus, pertussis (whooping cough), *Haemophilus influenza* type b (Hib), poliomyelitis (polio), measles, mumps and rubella. All these diseases are notifiable (which means health professionals have to inform the relevant authorities of cases).

VACCINATION SUCCESSES

Some diseases are pretty much under control. For example, no diphtheria cases have been reported since 1993. In fact, it's almost totally disappeared from industrialised countries. However, if immunisation rates fall — as they did in the early 1990s in the former USSR — the disease can return with a vengeance. The social upheavals of that country's political break-up affected the availability of vaccines and led to

an epidemic of more than 150,000 cases and 1500 deaths.

Tetanus is rare in Australia; and the number of people suffering from **mumps** has remained stable since 1996 — there have been no reported deaths from it since 1995, though 10 in the preceding 15 years.

Rubella (German measles) and *Haemophilus influenza* type b (Hib) are two diseases that in the past have devastated many lives. **Rubella** is generally a mild childhood disease, but when a pregnant woman contracts it, her child is likely to be born with a severe abnormality — nine out of 10 babies infected during the first 10 weeks after conception will have a major congenital problem, such as deafness, blindness, brain damage or heart defects. During the second half of the 1990s the number of rubella cases fell by over 80%.

Hib is a bacterial infection that's the most common cause of meningitis in children. It can also cause epiglottitis (swelling in the throat that can block breathing). Both of these diseases can cause death. In Australia more than 500 children used to contract the disease and 20 died from it each year; 30 who recovered were left brain-damaged. But these numbers have fallen dramatically since the Hib vaccination was introduced in 1993. In 1998, 35 cases were reported, in 1999 only four.

As a result of widespread immunisation campaigns, **polio** (or paralytic poliomyelitis) is disappearing from the world. In Australia there have been no cases of wild-type polio for at least 20 years, but a few possible cases of vaccine-acquired paralytic polio (VAPP) have occurred — see *Causes for concern*, page 30, for more on this.

The number of new **hepatitis B** cases has remained consistent over the 1990s, but the number of people dying from the disease is on the rise — from 11 deaths in 1979 to 55 in 1998. Hepatitis B affects the liver and causes acute hepatitis. Babies who get it may only have mild or no symptoms at all, but many will carry the virus in their bloodstream and may be able to pass it on to others. About a third of all chronic carriers will develop cirrhosis or liver cancer. A vaccine at birth to protect against hepatitis B is the latest addition to the Standard Immunisation Schedule.

Although vaccine-preventable diseases are much better controlled now than before mass vaccinations started, whooping cough and measles remain a problem in Australia.

WHOOPIING COUGH: STILL A PROBLEM

Pertussis (whooping cough) is the most frequently reported vaccine-preventable disease in Australia. A recent peak of the disease in 1997 claimed six lives in over 10,000 cases.

Most affected are children under one year old, (especially under two months of age, before they can

be immunised), but adolescents and young adults are at risk too. Between 1996 and 1997, the number of adults contracting pertussis doubled, and nearly half the cases reported are in people over 15.

"It's a significant problem in adults in Australia," says Professor Peter McIntyre of the Australian Technical Advisory Group on Immunisation. ATAGI considers immunisation issues as they arise in Australia and advises Commonwealth health authorities. Pertussis and its impact on older age groups is one of the topics it's currently looking at.

MEASLES: NOW A RISK FOR YOUNG ADULTS

Measles is a mild childhood disease — or is it? It's estimated that it kills about two million people each year, mostly young children in poor countries. In Australia, measles has caused more deaths in the past 15 years than diphtheria, pertussis and rubella combined. But since 1994, when a second dose of the vaccine was introduced, no deaths have been reported from it and the number of people suffering seriously from the disease has fallen dramatically — by 85%.

But measles outbreaks are still occurring in Australia. All it takes is one person to import the

Possible side effects

Of the common childhood vaccines, the following have some potential side effects:

- **Hepatitis B:** Most are minor and disappear quickly (soreness at the injection point, mild fever, nausea, feeling unwell and joint pain). More serious side effects are extremely rare.
- **Pertussis (whooping cough):** About 10% of children have local inflammation or fever after the combined DTPa (diphtheria-tetanus-pertussis acellular) vaccine; about 2% have extensive limb swelling, sometimes with redness and pain, after booster doses at 18 months or four years. Serious adverse reactions are very rare.

In the past concerns were expressed about the DTPa vaccine causing encephalitis (inflammation of the brain), but no proven link between the vaccine and brain damage has been established; the risk is thought to be less than one in a million, if any at all.

- ***Haemophilus influenza* type b (Hib):** About 5% of children have mild swelling, redness and pain at the injection site; about 2% have fever. More serious side effects have not been reported.
- **Polio:** With the oral polio vaccine (OPV), fewer than 1% of children get diarrhoea, headache and/or muscle pains. See *Causes for concern*, page 30, for more on this vaccine.
- **Measles/mumps/rubella (MMR):** A mild fever and possibly a non-infectious rash may develop five to 12 days after the injection. Some children may also develop swollen glands, a stiff neck or joint pains. The chances of developing encephalitis (inflammation of the brain) after MMR vaccination are one in one to three million.

WANT MORE INFO?

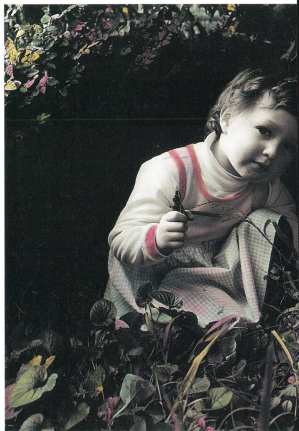
■ Understanding childhood immunisation (a booklet) and Understanding infant hepatitis B immunisation (a pamphlet) are available free from vaccination providers, or from <http://immunise.health.gov.au>. ■ Go to www.choice.com.au and type 'child vaccinations' in the search box for more on vaccinations plus some links to other useful websites.

Another viewpoint

According to its mission statement, the Australian Vaccination Network (www.avn.org.au, with more than 60 branches in Australia) works to address concerns regarding discrimination (see below) and to uphold the right of freedom of choice on this issue.

Apart from its concerns about reporting adverse reactions (see *Effectiveness and safety*, far right), AVN is also concerned about:

- Parents not being fully informed about vaccination. It would like health professionals to use a checklist when advising parents to make sure all issues, including side effects and contraindications (when not to vaccinate), have been discussed.
- Discrimination against parents who choose not to have their children vaccinated. It would like to see the requirement dropped that a GP must sign a conscientious objector's form for a parent, and a parental statutory declaration introduced instead.
- The lack of independent research on vaccination safety. It claims many studies are funded by pharmaceutical companies. It would like to see no vested interests involved in such studies and parent groups such as AVN included.



CAUSES FOR CONCERN

Vaccine-acquired paralytic polio (VAPP)

There have been no cases of wild-type polio for at least 20 years in Australia, but a few possible cases of vaccine-acquired paralytic polio (VAPP) have occurred, the last one reported in 1995, when a healthy, unvaccinated mother contracted the disease from her recently vaccinated baby.

The oral polio vaccine (OPV or Sabin) currently used in Australia is a suspension of live attenuated wild polio virus that, very occasionally, can mutate in the baby's gut and revert to virulence. That's why it's important that the baby's close contacts are immune to the virus, or are immunised at the same time.

VAPP is the only case where it's been scientifically proven that a vaccine has caused a major disability. Because of that risk, some countries have switched to using an inactivated polio vaccine (IPV or Salk), which is injected. In Australia, however, IPV is currently only routinely available in hospitals for children who have, or live with someone who has, a disease such as leukaemia or HIV/AIDS, or are on medication that lowers immunity.

The main reason why Australian health authorities haven't made the universal switch to IPV is the price of the vaccine: it costs almost 100 times as much as OPV. But ATAGI has considered the switch and hopes to be able to recommend its use for all children in a few years' time, once IPV becomes available in a combined vaccine at a lower cost.

MMR and autism

In the mid to late 1990s two studies by British gastroenterologist Andrew Wakefield suggested that the combined measles-mumps-rubella vaccine (MMR) could cause inflammatory bowel disease and lead to decreased absorption of essential vitamins and nutrients through the intestinal tract, which could result in developmental disorders such as autism.

Since the Wakefield claims were published, nine separate studies, including large population-based ones, have found no link between MMR and inflammatory bowel disorder or autism. The World Health Organization (WHO) says, "Other scientists have not been able to reproduce the results claimed by Dr Wakefield and his team," and that, "His published observations ... do not meet the scientific criteria required to suggest that the vaccine is the cause. ... WHO strongly endorses the use of MMR vaccine on the grounds of its convincing record of safety and efficacy."

Because autism is usually detected when children are around 18 months old, some say it's inevitable that some children will just have been vaccinated before the first signs of autism become apparent. But because of the publicity the issue has received in the UK, many British parents are now refusing MMR vaccine or asking their GP for the more expensive single vaccine for measles. Although the immunisation rates for MMR dropped by only 3% following the autism speculation, it nevertheless resulted in a measles epidemic.



BRONIA TOWRIE

disease into the country; a 1999 outbreak in Victoria showed how quickly it can then spread among those who aren't fully immunised. One person contracting the disease while on holiday in Bali resulted in 75 identified cases in Victoria and SA. And of these, 37% suffered badly enough to need hospitalisation.

Interestingly, this measles outbreak was the first in Australia to involve predominantly young adults. Around 85% of the people who contracted it were between 18 and 31. People in this age group are generally too young to have developed immunity from exposure to the wild measles virus and too old to have received a second dose of the vaccine, which wasn't introduced till 1994. Some may not even have received a single dose.

Following its Measles Control Campaign in 1998, the Federal Government is now targeting about three million young adults with a free MMR vaccination that protects against measles, mumps and rubella.

THE OTHER SIDE: FEARS AND OBJECTIONS

All these statistics highlight the importance of childhood immunisation. However, it's usually the rare cases of severe adverse effects that turn some people against vaccinations. In *Causes for concern*, below, we report on some of the concerns raised in recent years and give Australian and international health authorities' comments.

In Australia, researchers from the National Centre for Immunisation Research and Surveillance of Vaccine Preventable Diseases (NCIRS) say there's no evidence to suggest that single vaccines are better than combined ones. Giving them separately may even be harmful, they suggest, because it exposes children and their contacts to serious diseases over a longer period of time. Overall, NCIRS's Deputy Director, Professor Peter McIntyre, urges parents not to worry about it. "It's not an issue, a non-event, just speculation," he says. "It's unwarranted and simply unnecessary."

Hep B and MS

Since May 2000, the Australian Standard Immunisation Schedule has included a hepatitis B vaccination at birth. Reports linking this vaccination with the onset of multiple sclerosis (MS) originated in France — where over one third of the entire population was vaccinated against hepatitis B — and prompted the government to stop its school-based hep B vaccination program.

NCIRS reports that an examination of the French data revealed that the MS rate in France was not significantly different from the expected population rate, and that there was very little else in the medical literature that suggested such an association.

NCIRS concludes that there's currently no evidence that the hep B vaccine causes MS. However, further controlled studies are necessary

and are being conducted, and the results should be available in the near future.

WHO concludes in a similar vein and recommends countries continue universal vaccinations for babies and/or adolescents and adults at increased risk.

Thiomersal

Thiomersal (also known in the US as thimerosal) is a preservative containing mercury that's added in very small quantities to some vaccines. In past years concerns were raised about its potential to increase newborn babies' mercury levels above the recommended guidelines. Although no harmful effects have been reported, all vaccines on the current Australian Standard Vaccination Schedule for children under five are now thiomersal-free.

vCJD (mad cow disease)

Calf serum is sometimes used in the early stages of viral growth for vaccines (such as for polio). Last year there was a recall of a UK polio vaccine brand not used in Australia. The Australian Government Expert Committee on Transmissible Spongiform Encephalopathies has since concluded: "The risk of exposure to vCJD through vaccines is considered negligible and substantially less than the theoretical risk of transmission through blood."

"Immunisation is a victim of its own success," says Professor McIntyre, speaking about the primary dilemma we have with immunisation and its rare side effects. Now that some diseases have been completely eradicated and the incidence of others greatly reduced, people no longer remember the diseases and their effects. Instead, the worry about adverse reactions becomes a general feature of vaccination campaigns.

EFFECTIVENESS AND SAFETY

No vaccine works 100% for all people, but those recommended in the Standard Immunisation Schedule are at least 95% effective (the pertussis vaccine about 85%). This means that a few immunised people may still contract the disease, but their symptoms are usually much milder than in those who haven't been immunised.

Likewise, no vaccine is completely without some adverse effects. However, serious adverse reactions following a vaccination are extremely rare, and most are the same as the disease can cause — see *Possible side effects*, page 29. The chances of suffering these consequences from the diseases, though, are very much higher than from the vaccinations.

The Australian Drug Reactions Advisory Committee (ADRAC) keeps a record of all reported serious or unexpected adverse reactions to vaccinations (and other medications).



BRONIA TOWATE

The Australian Vaccination Network (see *Another viewpoint*, page 30) is critical of this voluntary, passive reporting system because, it claims, less than 10% of reactions are reported. Making reporting of adverse reactions mandatory for doctors and introducing penalties for non-compliance with this requirement would improve the system, it says.

However, ADRAAC says if it's hearing about only 10% of reactions, then the remaining ones are less serious — its primary concern is with the worrying, unexpected reactions that could signal that a particular batch or vaccine caused problems. The much larger number of minor and expected adverse reactions is best dealt with by doctors and health professionals.

When not to vaccinate

To reduce the number of injections required when vaccinations are due — and the risk of missing one — some vaccines are combined. For example, the DTPa vaccine protects against diphtheria, tetanus and pertussis (whooping cough), and MMR against measles, mumps and rubella.

Before reaching school age, Australian children should have received five doses of DTP vaccine. In 1998, however, the Australian Childhood Immunisation Register noted that over the previous two years children had been given more than 32,000 doses of combined diphtheria-tetanus vaccine (without the pertussis component) rather than DTP. This lack of immunisation is partly responsible for the re-emergence of pertussis in the late 1990s.

According to NHMRC guidelines, there are **only two absolute contraindications** (reasons not to vaccinate) for pertussis vaccination: encephalopathy or severe allergic reaction following a previous dose.

And an egg allergy, even an anaphylactic one, is not a contraindication for immunisation with measles vaccine or MMR.

If your child is very unwell or has a high fever when the vaccination is due, talk to the vaccination provider and postpone the appointment till the child is feeling better.

These common side effects are usually mild and can be relieved by simple measures such as a dose of paracetamol or a cool bath. Talk to your GP (or immunisation clinic, hospital or health service) or refer to the booklet *Understanding childhood immunisation*, available free from vaccination providers.

KEEPING A RECORD

The vast majority of Australians are strongly in favour of immunisation, about 0.5–1% are completely opposed to it and 10–15% fail to complete the course. This last group includes people who 'never got round to it' or forgot because, say, their child had a cold at the time the vaccination was due.

The establishment of the Australian Childhood Immunisation Register (ACIR) in 1996 should help in such cases: it sends out 'milestone letters' to parents of children registered with Medicare after their first, second and fifth birthdays, informing them of their child's vaccination status.

ACIR records, directly from providers, immunisation details of children under seven years old and provides up-to-date immunisation data for public health researchers as well as individuals.

If you're unsure whether your child's vaccinations are up-to-date, you can ask for an immunisation history statement from ACIR via the Internet (<https://www.1.hic.gov.au/ssl/acircircert>) or phone 1800 653 809. You'll need the number of the Medicare card on which your child is registered. ACIR will mail the statement to your latest registered address, so keep Medicare informed when you move.

GOVERNMENT BENEFITS

Childhood vaccinations aren't compulsory in Australia, but if you fail to keep your child's immunisation up-to-date without having an exemption (see below), you may miss out on the Commonwealth Government's childcare benefit and maternity immunisation allowance.

And when you want to enrol your child in a childcare centre or school and can't provide documented evidence of immunisation, the child may be excluded from school during outbreaks of vaccine-preventable diseases, both for their own protection and to avoid their infecting others.

If you have a personal, philosophical, religious or medical belief that your child shouldn't be vaccinated, talk to your immunisation provider. You need their signature on a conscientious objection form to receive the benefits mentioned above. They can also certify an exemption if a particular vaccine is unavailable, if your child has a medical reason not to have a particular vaccination or has had a disease and has natural immunity.

YOUR MONEY

Credit cards and their loyalty schemes are under the spotlight of the Reserve Bank and the ACCC. We asked subscribers whether they live up to their promises.



Does LOYALTY still count?

IN A NUTSHELL

While only 36% of survey respondents in loyalty programs think they provide 'good' or 'excellent' value for money, nearly 30% have changed where they shop to earn more points. And almost 60% now put more purchases on credit than before being in the loyalty program.

Most respondents don't like the idea of credit card customers paying directly for using them by being charged a slightly higher price than cash customers. But it's one option being considered for fee reform.

The Australian Competition & Consumer Commission (ACCC) recently put frequent flyer schemes under intense scrutiny. This has already resulted in big changes to Qantas Frequent Flyers, which came into effect last month.

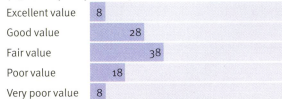
At the same time the Reserve Bank of Australia (RBA), working with the ACCC, is calling for reforms of credit card fees. In particular it's put pressure on the banking industry to reduce the high fees retailers are charged when shoppers pay by credit card.

One possibility would be to introduce a surcharge on consumers for credit card purchases: instead of retailers charging a slightly higher price to everyone to cover credit card fees, the extra charge would be paid only by people who used a credit card. The majority of respondents to our survey didn't like this idea: 70% of them said they'd use their credit card less if a surcharge applied; 12% said they'd stop using it. CHOICE will be following developments.

VALUE FOR MONEY?

80% of survey respondents have a loyalty program linked to their credit card. However, only 36% of them said it provides good or excellent value for money:

Is your loyalty program value for money? (% from 242 respondents)



THE SURVEY

In June this year 367 CHOICE subscribers told us how they use their credit card and what they think of its loyalty program. Thanks to all those who took part.

Almost two thirds of those in a loyalty scheme had redeemed points, and they rated the schemes better for value than respondents who hadn't.

Most satisfied were respondents who'd used their points for flights: about 60% of them said the loyalty program provides good or excellent value. This compares to only 25% of respondents who'd taken non-flight rewards, such as gift vouchers.

CHANGING BEHAVIOUR

We asked people with a loyalty scheme linked to their credit card if they'd changed the way they shop to maximise points.

Almost 60% said they now use their credit card more often in order to earn more points. Nearly three out of 10 have changed where they shop and 44% have taken advantage of bonus point offers:

Changing behaviour (% of respondents)	Changed a lot	Changed slightly	No change
Put more purchases on credit	35	23	42
Changed where you shop	5	24	71
Taken advantage of bonus point offer	10	34	57

CLEVER USE OF CREDIT CARDS

Seventy five per cent of survey respondents avoid interest by paying the entire amount off each month. Those over 55 have even better habits: a clear 85% majority of them pay it in full.

There'll be more advice on how to choose a good credit card in an upcoming issue of CHOICE.

WEBMAIL

Need an email address, or a second email address? How about webmail?

IN A NUTSHELL

Webmail gives you a free email address. You might find it useful if:

- You don't have a home Internet account, but want a personal email address.
- You travel a lot, and want email that's accessible anywhere.
- You'd like a personal email address you can use at work.
- You want to remain anonymous.
- You don't want your regular email to get junk mail.

TIP:

Head to www.choice.com.au, and type 'webmail' in the search box for more information and comparison tables.

TIP:

If you're sharing a computer to view your webmail, say from an Internet café, always log out after using the mail address, so other people can't look at your mail.

Webmail is an email service you can access with your Web browser. Normal email is handled by your Internet service provider (ISP), so you need a direct connection from your computer to theirs to make it work. Webmail, on the other hand, is just like any website — you can access it from anywhere in the world, without needing your own ISP.

You also don't need a special email program — you use a browser (for example, Internet Explorer or Netscape) to read, write and send mail. When someone sends email to your webmail address, the webmail provider stores it, and you can use your password to sign in and read it from any computer with an Internet connection. Best of all, most webmail is free.

WHAT TO LOOK FOR

- **Privacy:** Apart from collecting information about you when you sign up, most accounts will also want to send you regular 'offers' and 'information'. Fortunately, you can opt out of a lot of it, and avoid junk mail in the process. Choosing a site with a good privacy policy and which collects only essential information is a good start — try www.myrealbox.com.
- **Little (or no) advertising:** Supplying a free service can be costly, so many webmail providers use advertising

to offset their costs. Ads may 'track' where you go on the Internet as well. Look for one with no ads, like www.myrealbox.com, or with as few as possible.

- **Mail handling:** A webmail address comes with a small amount of space to use as your mailbox. You can divide this space up into folders, so you can sort your mail however you like — business, family and newsletters, for example. There are more features available, though; a good webmail service can help you to:
 - Quote the message you're replying to.
 - Send and receive attached files.
 - Compose your mail in plain text or with fancy styles and stationery.
 - Spell-check your mail.
 - Save a draft you're working on.
 - Check for viruses.
 - Auto-respond to mail to let people know when you're on holiday.

Not all mailers can do all of them, so check first if you need these features.

- **No junk mail:** It helps to be able to block mail from specific addresses or filter mail depending on who it's from and whether you know them. A bulk mail folder that automatically collects obvious junk mail is a good idea, too.

- **Added extras:** You can combine your webmail with a calendar, scheduler, instant messaging and more — try Hotmail (www.hotmail.com) or Yahoo (mail.yahoo.com).

- **Check regular email:** If you travel, you can check the regular email you get through your ISP from a webmail account if the webmail has 'POPmail' collection. (POPmail is the main method used to collect email from your ISP — not all webmail services can use it). You'll need to know the mail server, username and password for your regular email to set it up.

WE RECOMMEND

www.myrealbox.com
mail.yahoo.com

These recommendations are from a recent review in our sister magazine, *Computer CHOICE*. To find the right webmail for you, you could try the selector at www.fepg.net or browse www.emailaddresses.com.

Bring your friends, bring your enemies!

All the cool kids are gonna be at 1313 Mockingbird Lane, / grooviest 70's party around.

Starts at 8, goes til late

Be there!

RSVP 12th August

Subject: Job opportunity

I was checking listing this position and thou you've often talked ab and Dublin sounds like check out the link att

Speaking the language

Add/Edit Attachments

Copy Message

perhaps we were in the Louvre, and mention of a work perhaps... listed-up official map, we could find no reference samples of trans-channel artists. So u tell us where to find the British te to a gallery official.

British paintings, we can't find them

FRANKLIN

AIR CONDITIONERS

Keep your cool this hot season.



IN A NUTSHELL

- On test: 11 split-system reverse-cycle air conditioners with 3.1 to 3.8 kW claimed cooling capacity — suitable for an enclosed space such as a large bedroom or smaller living area.
- 25°C may not be as cool as you'd like, but it's a good summer air conditioning setting to save money. Each degree below this can increase your cooling costs by up to 15%.
- Follow our tips for keeping cool without an air conditioner — see page 37.

Ah, summertime — happy holidays, long lazy days and balmy nights. Or is it more a case of sweating it out, hopping over steaming asphalt? One thing's for sure, a cool home's important for many Australians, and an air conditioner is the only appliance that can really cool a hot room effectively — but there are other, often cheaper, ways to keep the heat out of your home in the first place: see our tips on page 37. If you've followed these and your house is still too hot for your liking, you'll almost certainly appreciate an air conditioner.

WHAT KIND?

There's a variety of air conditioners to choose from, depending on where you live and what you want. See page 36 for how to work out the right size for your room or home.

- Evaporative air coolers (last tested in CHOICE, November 2000) draw the hot air over a material that's continuously wetted from a reservoir. The water evaporates, absorbing heat from the air. The cooler, moist air is then blown into the room. Evaporative cooling only works well in dry inland climates.

- In humid or coastal areas you don't want to introduce any more moisture into the air while cooling it. You need a heat pump, which works like a fridge: it pumps heat from one place (such as the inside of your home) to another (the outside, in this case).
- Reverse-cycle heat pumps (like those in this test) cost a bit more, but can both cool and heat your house (even cold winter air contains usable heat that can be pumped into your home).

Heat pumps come as wall or window units; split systems where the compressor is installed outside the house and the air outlet(s) inside (like the models in this test); and ducted systems with an outside compressor and several ducts inside into as many rooms as you like. For more on ducted air conditioning, see the article on page 40.

WHAT TO BUY

LG LS-L1260HL (A)	★TEST BUY★	\$1347
PANASONIC CS/CU-A123KR (B)		\$1566
CARRIER 53G150HF		\$1399

(A) Technically similar to the Kelvinator KSR15F (\$1391).
 (B) This model has been replaced by the CS/CU-A125KR (\$1904), which has the same technical specifications, but has undergone design changes. So while our performance results should be valid for the new model, the ease of use assessment may be different.

The models in the *What to buy* list scored well for cooling and heating efficiency. The LG and PANASONIC are also among the cheapest to run of the models tested.

INVERTER TECHNOLOGY

With conventional air conditioners like those in this test, the compressor is either on (working to 100% capacity) or off. Some manufacturers sell inverter models — a technology that allows the unit to vary the compressor speed and maintain the set temperature within a narrow range.

Manufacturers claim inverter models can be less noisy and reduce running costs, but they're usually more expensive to buy than conventional models. They could be worth considering if you want to use one in a bedroom.

PROFILES

Models in the *What to buy* list are profiled in rank order. Prices are from a phone survey in Sydney, Melbourne and Brisbane in August 2001.

LG LS-L1260HL

BEST BUY

Price: \$1347

GOOD POINTS

- Very efficient cooling and heating.
- Low running costs.

- High maximum airflow, which helps cool or heat a room quickly.
- Fan-only mode — good for increasing airflow in, say, a stuffy room.

BAD POINTS

- Among the poorer models for ease of use — its remote is awkward, with small keys not always clearly labelled.

PANASONIC CS/CU-A123KR

Price: \$1566

GOOD POINTS

- Efficient cooling.
- Very efficient heating.

- Easy to use.
- High maximum airflow.
- Relatively low running costs.
- 'Economy' and 'powerful' modes.

BAD POINTS

- Limited airflow range, so you may not be able to adjust it to avoid draughts as much as you'd like.
- No fan-only mode.

CARRIER 53G150HF

Price: \$1399

GOOD POINTS

- Efficient cooling.
- High maximum airflow.
- Fan-only mode.

BAD POINTS

- Not very easy to use — the filter is difficult to remove and clean.
- The outdoor unit is comparatively noisy.
- The most expensive in the test to run, partly due to high standby power consumption (it has a crankcase heater designed to prevent the liquid refrigerant from condensing into the compressor oil; this runs whenever the compressor isn't on and draws 27 W).

What about the rest?

- While the **TECO** is the most efficient model for cooling, it's one of the worst for heating. So it's only worth considering if heating is clearly the lower priority for you. It also has the lowest maximum airflow.

- All the other models aren't as efficient as those in the *What to buy* list for cooling and/or heating.
- The **SANYO** and **YORK** have a comparatively low maximum airflow and (like the **FUJITSU**) poor airflow range.

Heat pumps are usually simple to set and adjust. Setting the temperature slightly higher in summer and lower in winter, and wearing clothing to suit, will help to keep running costs down (see *In a nutshell*, page 35).

Check how noisy the models are (see the table, page 38), especially if you're getting one for a bedroom. And you'll have to clean the filters regularly when the air conditioner is in use.

WHY REVERSE-CYCLE?

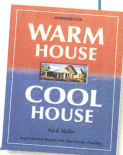
- Reverse-cycle models only cost a bit more than cooling-only models, but you can also use them for heating in winter.
- While the purchase and installation costs can be high, reverse-cycle air conditioners are among the cheapest forms of heating to run.
- They cause less carbon dioxide to be produced in power plants burning fossil fuel than other kinds of electric heater.
- There's also less risk of burns if you use one for heating, as there are no open flames or hot surfaces.
- At temperatures around 6°C and below, frost can start to form on the outside compressor coils, reducing the unit's heating efficiency. Most models have a de-icing feature to prevent this, but in very cold climates you may need an additional heater or a different type of heating system (see pages 40–42).

GET THE RIGHT SIZE

You need the right size of unit to get the best value from an air conditioner. CHOICE Online has interactive tools to help calculate the right capacity for the area you want to cool — or, alternatively, heat. Go to www.choice.com.au and type 'cooling options' or 'heating options' into the search box on the home page, then click on the 'member' article and log in (see page 2 to get free trial membership).

If you don't have Web access, you'll find 'How to calculate your cooling needs' in our October 1999 article on split-system air conditioners. If you don't have that issue, phone CHOICE Consumer Services on (02) 9577 3399 and we'll send you a photocopy.

The CHOICE book *Warm House, Cool House* also includes plenty of useful information to help make your home more energy-efficient: you can order it from our website or from the catalogue that came with this issue.



WHAT TO LOOK FOR

- Getting the right size (capacity) for your room or house is very important: see below left.
- Compare the energy-efficiency rating of models with the capacity you need (see *Energy rating label*, page 39).

Features (almost) all the models have

- Remote control.
 - **Operating modes:**
 - Auto: Automatically chooses the mode required to keep the room at a selected temperature.
 - Cool: Pumps heat from the inside to the outside.
 - Heat: Pumps heat from the outside to the inside.
 - Dry: Removes moisture from the inside air dehumidifies) without reducing the temperature as much as in cool mode.
 - Fan only: Blows air without heating, cooling or drying.
- The **PANASONIC, DAIKIN, MITSUBISHI, YORK** and **SANYO** don't have this feature.
- A **multi-speed fan** allows you to vary the airflow according to your needs.
 - **Oscillating and adjustable louvres** allow the air to be distributed more evenly.
 - A **timer** lets you switch the unit on and/or off automatically at certain times; a sleep timer adjusts the temperature (up when cooling, down when heating) so the unit works less hard and less noisily when you're sleeping.

■ **Restart delay:** This is a protective feature that prevents the units from starting up again too soon after being switched off.

■ **Clock** (except the **DAIKIN** and **SANYO**).

■ **Automatic de-icing:** if you live in a cold area, look for a model with this, or you may have problems with frost building up on the outdoor heat exchanger coils in winter, considerably reducing the unit's energy efficiency. However, de-icing uses energy and so will also decrease the efficiency of your air conditioner.

Check how easy the filter is to remove, clean and refit before you buy. The Carrier's was the most difficult in this test.



VANESSA WARRHALL

Installing your air conditioner

- You can buy a split-system air conditioner from air conditioner retailers (look up *Air Conditioning — Home or Air Conditioning — Installation & Service* in the Yellow Pages), most electrical appliance retailers and some department stores. Most traders offer supply and install packages, some installation only.
- Installation of a split-system air conditioner generally costs at least \$500, depending on the model and your situation. Get several quotes.
- Cool air is heavier than warm air. So, for optimum cooling, the air outlet should be installed as close to the ceiling as possible, with the louvres pointing horizontally or upward. That way the cool air can spread out, drop down and cool the whole room; for heating, point the louvres downwards.
- It's generally better to install an air conditioner on a longer wall of a room, but your installer should be able

to recommend the best place for your situation.

- Air conditioners can be noisy, so think about your neighbours when deciding where to install the outdoor unit. Check with your local council whether there are regulations on acceptable noise limits where you live.
- The outdoor unit of your split system needs to be installed on a firm base (for example, a concrete slab) or attached to a wall, using sturdy brackets. It should be as close as possible to the indoor air outlet, preferable 15 m or less away.
- Shade the outdoor part of your air conditioner from direct sunlight — for example, by installing it on a southern wall or providing an awning.
- Larger air conditioners than the models in this test (3.1–3.8 kW cooling capacity) can't be plugged into a regular power point, but require a special connection.

TIPS FOR KEEPING YOU AND YOUR HOME COOL

Whether or not you have an air conditioner, these tips will help you keep cool this summer (and if you do have one, it won't have to work as hard).

- The first step's insulating your ceilings (and walls if possible).
- Shading for east, north and west-facing windows helps prevent the sun's heat from entering your home; outside shading is more efficient than internal blinds or curtains.
- Draughtproof your home.
- Try fans for a cooling effect.
- Avoid activities that produce heat during the day.
- Wear light clothing made from natural fibres.
- Contact your state or territory's energy information centre for more tips.

PERFORMANCE

								7 Capacity (kW)	
Brand / model (in rank order)	1 Overall score (%)	2 Cooling efficiency score (%)	2 Heating efficiency score (%)	3 Airflow score (%)	4 Ease of use score (%)	5 Running costs (\$ / 10 years)	6 Indoor / outdoor noise levels	Cooling, claimed / measured	Heating claimed measure
LG LS-L1260HL (A)	82	85	89	73	65	1554	Medium / medium	3.46 / 3.38	3.67 / 3.1
PANASONIC CS/CU-A123KR (B)	79	78	87	70	73	1618	Medium / medium	3.40 / 3.32	4.15 / 4.0
CARRIER 53G150HF	76	82	72	75	61	1949	Medium / noisy	3.52 / 3.41	3.69 / 3.1
DAIKIN FTY35FV1A7	74	75	75	76	61	1909	Medium / medium	3.75 / 3.82	4.20 / 4.0
SHARP AC129RSYS	74	74	72	77	71	1730	Medium / medium	3.50 / 3.35	4.00 / 3.1
TECO LS-LT1220Y	74	90	69	51	71	1500	Medium / noisy	3.34 / 3.16	3.46 / 3.1
FUJITSU AST12RSHC-W	71	72	78	60	70	1734	Medium / quiet	3.42 / 3.38	3.98 / 4.0
MITSUBISHI MSH-12RV	70	69	69	74	72	1796	Quiet / medium	3.40 / 3.23	4.00 / 4.0
HITACHI RAS5142CHA	69	68	70	72	59	1930	Medium / medium	3.60 / 3.42	4.65 / 4.0
YORK MHH12/MOH12	69	74	79	44	69	1483	Noisy / noisy	3.14 / 2.96	3.65 / 3.1
SANYO SAPPK12AHA	64	65	67	50	77	1751	Noisy / medium	3.20 / 3.13	3.75 / 3.1

* Rounded to next centimetre; all protruding parts (except cords) included.

** Prices are from a phone survey conducted in Melbourne, Sydney and Brisbane in August 2001, unless otherwise stated.

ns Not stated

(A) Technically similar to the Kelvinator KSR15F (RRP: \$1391).

(B) According to the manufacturer, this model has been replaced by the CS/CU-A125KR (RRP: \$1904), which has the same technical specifications but has undergone design changes. So while our performance results should be valid for the new model, the ease of use score could be different.

(C) Old label.

(D) No label.

(E) One year labour, extended to five years if you register; five years parts.

(F) The price we paid in March 2001; we couldn't get retail prices for this model in out-of-season August.

1 Overall score

The overall score is a combination of cooling efficiency, heating efficiency, airflow and ease of use, weighted as follows:

- Cooling efficiency: 40%.
- Heating efficiency: 30%.
- Airflow: 20%.
- Ease of use: 10%.

Reverse-cycle air conditioners are more often used for cooling than heating, which is why we've weighted cooling efficiency higher than heating efficiency.

2 Cooling / heating efficiency scores

For a particular room size and climate conditions specified in the Australian standard, the tests measured and rated the cooling/heating output (in kW) per kW of power used by these models.

3 Airflow score

We measured the indoor airflow (in litres per second) on the highest and lowest settings, and assessed the following:

- Maximum airflow (a higher airflow will cool your room faster and achieve a more even temperature).
- Airflow range (the lowest setting should provide clearly less airflow than the highest to prevent you sitting in a draught).

HOW RELIABLE HAVE OUR SUBSCRIBERS FOUND THEM?

We asked a group of subscribers whether their air conditioner had needed repair during the past 12 months, and whether they'd buy the same brand again. The graphs below show the results for those brands for which we received sufficient responses to report on. The number in brackets tells you how many readers reported on each brand.

The survey also covered brands not included in

this test, and we don't have reliability data for all brands on the market. Also note that the results of the survey are for all types of air conditioner, not just reverse-cycle split-system ones.

On average, 11% of air conditioners had needed repair in the past 12 months, making them a relatively reliable appliance. The average cost of repair was approximately \$135.

Percentage not needing repair

Kelvinator (147)	96
Panasonic (187)	93
Fujitsu (143)	91
Emailair (106)	89
Daikin (85)	88
Mitsubishi (112)	87
Carrier (156)	82

Percentage who would buy the same brand again

Daikin (87)	93
Fujitsu (152)	91
Panasonic (200)	91
Kelvinator (150)	89
Carrier (162)	88
Mitsubishi (119)	88
Emailair (111)	83

				FEATURES		SPECIFICATIONS				
8 Power consumption (kWh over 500 hours)		9 Star rating		10 Fan-only mode	11 De-icing mode	Dimensions, indoor / outdoor unit (H x W x D; cm)*	Origin	Warranty (years)	Manufacturer / distributor	Target price (\$)**
Cooling, claimed / measured	Heating, claimed / measured	Cooling claimed / measured	Heating claimed / measured							
640 / 628	575 / 591	3 / 3	3.5 / 4	✓	✓	29 x 89 x 18 / 55 x 84 x 29	Korea	5	LG Electronics	1347
655 / 651	620 / 635	2.5 / 2.5	4 / 3.5		✓	28 x 80 x 19 / 55 x 77 x 35	Malaysia	5	Panasonic	1566
660 / 645	675 / 682	5 (C) / 3	4 (C) / 2.5	✓	✓	26 x 82 x 19 / 59 x 74 x 27	Korea	5	Carrier	1399
750 / 765	715 / 714	2.5 / 2.5	3 / 2.5		✓	30 x 79 x 19 / 54 x 83 x 32	Thailand	5	Daikin	1377 (F)
690 / 678	685 / 690	2.5 / 2.5	3 / 2.5	✓	✓	30 x 90 x 19 / 64 x 86 x 30	Thailand	1 (E)	Sharp	1649
590 / 565	595 / 611	3.5 / 3.5	3 / 2	✓	✓	30 x 84 x 19 / 51 x 85 x 33	Indonesia	5	Teco	1197
650 / 690	640 / 681	4 (C) / 2.5	6 (C) / 3	✓	✓	26 x 82 x 19 / 54 x 75 x 29	China	5	Fujitsu General	1562
660 / 679	700 / 742	2.5 / 2	2.5 / 2		✓	29 x 85 x 19 / 55 x 87 x 32	Thailand	5	Mitsubishi Electric	1459
715 / 724	775 / 796	2.5 / 2	3 / 2	✓	ns	30 x 82 x 19 / 52 x 87 x 31	Malaysia	5	Hitachi	1499
575 / 597	605 / 581	(D) / 2.5	(D) / 3		✓	29 x 80 x 19 / 50 x 82 x 27	Thailand	5	York International	1356 (F)
675 / 683	660 / 694	2 / 1.5	2.5 / 2		✓	25 x 79 x 18 / 53 x 75 x 29	Singapore	5	Sanyo	1304 (F)

4 Ease of use score

We assessed the remote controls, instruction manuals and the ease of removing, cleaning and refitting the air filters.

5 Running costs over 10 years

These are based on the models operating for 500 hours of cooling and 500 hours of heating each year, and left on standby for the rest of the year. We used an electricity price of 12.5 cents/kWh.

Most models only use up to about 3 W when on standby. However, the **DAIKIN** uses twice as much (5.9 W), and the **CARRIER** a whopping 30 W. The latter is largely due to a crankcase heater that runs whenever the compressor isn't on, and draws 27 W; it's designed to prevent the refrigerant from condensing into the compressor oil.

This comparison shows that even if a more efficient model has a higher purchase price, it can often be recovered by its lower running costs.

6 Indoor / outdoor noise level

We measured the noise levels of the indoor units with the fan on the low setting, and outdoor on high, in our test rooms; the table shows which models are comparatively quiet or noisy.

7 Capacity

You choose a reverse-cycle air conditioner based on the cooling and heating capacity required for your room(s). The tested models are suitable for a large bedroom or small living area. All the measured values were within 10% of the manufacturers' claims (which are an average of several tested samples).

8 Power consumption

All our measured power consumption results were within 10% of the labelled values (which are an average of several tested samples).

9 Star rating

For most models, this was close to the claims on the energy labels, which are an average of several tested samples. The exceptions are models still carrying an old energy rating label, which can't be used after October 1, 2001. (See *Energy rating label*, right.)

10 Fan-only mode

Models with a tick in this column can run the fan without operating the heat pump. See *Features (almost) all the models have*, page 37, for other operating modes.

11 De-icing mode

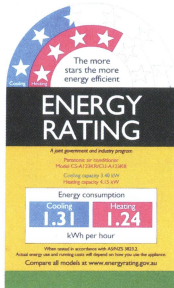
Models with a tick in this column automatically defrost the outdoor coils in cold conditions.

ENERGY RATING LABEL

Split-system air conditioners with a cooling capacity of up to 7.5 kW have to carry an energy rating label indicating the unit's energy efficiency. The label shows its energy consumption under test conditions, and a corresponding star rating. The more stars (six is the highest), the more energy-efficient the air conditioner. (The current label was introduced on October 1, 2000, and is based on a tougher standard than before. If the model was also rated under the previous standard, details of the original rating are inside the green band.)

The label for reverse-cycle air conditioners shows two numbers: a blue one for energy consumption when cooling, and a red one for heating. Accordingly, there are two separate star ratings.

Don't base your decision for a model on its star rating alone — for example, a 4 kW model may have more stars than a 3 kW one, but will still use more energy. So first find out what size you need (see *Get the right size*, page 36, for how to do this) and then choose the most efficient model in that range; it won't necessarily be more expensive to buy.



A really COOL home

Do you want to cool and heat your whole house or large parts of it? A ducted reverse-cycle air conditioner may be the solution.

IN A NUTSHELL

- Depending on your climate, consider a central cooling-only or heating-only system as an alternative to a ducted air conditioner.
- Don't buy any central system off-the-shelf; talk to your installer about the right size and design.

Ducted reverse-cycle air conditioning can be a very convenient way of cooling and heating your home. However, before you spend thousands of dollars having a centralised system installed, and several hundred dollars a year to run it, consider other cooling and heating options (these are covered in CHOICE, October 1998 and April 1999, respectively; or go to www.choice.com.au and type 'cooling options' or 'heating options' in the search box — see page 2 for free trial membership).

Even if you decide on a central system, cooling only or heating only may be suitable (see *Other central cooling and heating systems*, page 42), depending on where you live. And the heating efficiency of reverse-cycle air conditioners drops at outside temperatures below about 6°C. If you live in such a cold climate, you're better off with a different type of heating.

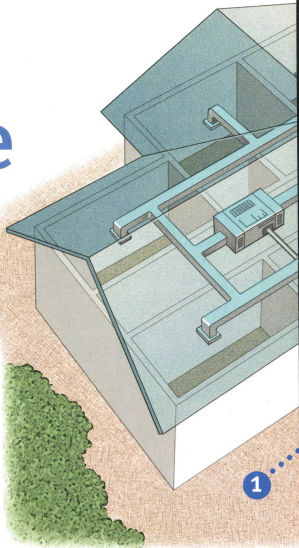
DON'T WASTE MONEY

Before you buy any cooling or heating system, first optimise the energy efficiency of your home — for example by insulating the ceilings and walls, and draughtproofing windows and doors. Then calculate the heating or cooling capacity (the system size) you need; you'll probably need an expert for this.

Getting the right size

The size and design of a ducted cooling and/or heating system depend on a range of factors:

- Your home's floor plan: how many levels are there? What are the dimensions of the rooms (including ceiling height)? Which direction do the rooms face?
- The size, position and orientation of windows and doors.
- The type of construction (for example, weatherboard or full brick).
- The level of insulation.
- The number of people living in your home.
- The main use of the area (for example, sleeping, living, cooking).



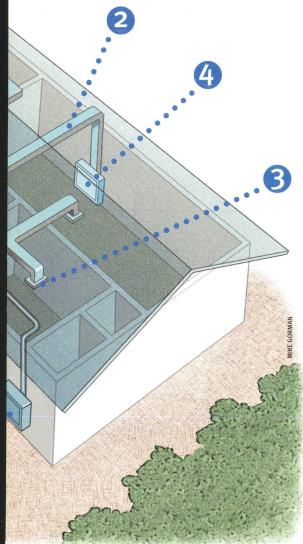
That's why you shouldn't buy a system off-the-shelf — get the supplier to design it for your individual situation.

How much they cost to buy and run

You'll be hard-pressed to find a ducted reverse-cycle air conditioner for less than \$5000, and the costs can reach twice or even three times that amount, depending on the size of your home.

The running costs mainly depend on:

- The type and size of your system.
- The energy efficiency of your system.
- The time you're operating the system for.
- The construction of your home (floor plan, level of insulation, size of windows, etc).
- The electricity tariff you're paying.
- The temperature you choose on the thermostat: each degree Centigrade cooler in summer and each degree warmer in winter will increase the running costs by 10-15%. Find the temperature you're just comfortable with — try 25°C in summer and 20°C in winter.



By following some easy rules in day-to-day operation, you can further reduce running costs:

- Close all external doors and windows when your system is running.
- Shade your windows during hot summer days (to keep the heat out) and during cold nights (to keep the heat in).
- When you expect a hot day, turn on the air conditioner early, rather than wait until your home is hot. Similarly, start heating early when expecting a cold day.

The Sustainable Energy Authority Victoria (SEAV) has estimated the annual running costs for a 150 m² Melbourne home (see the table, right; note that the figures may be different elsewhere, or for a different-size house).

As you can see, a high-efficiency zoned system — that is, you can heat or cool just certain rooms at a time rather than the whole house or nothing — can save you several hundred dollars a year.

What to look for

A ducted reverse-cycle air conditioning system has the following main parts:

- 1 **A heat pump** that transfers heat between the inside and outside of your house (see *How a heat pump works*, page 42). It's usually installed outside or in the roof space.
- 2 **Ducting** installed above the ceiling or under the floor to distribute the 'conditioned' air. The ducting needs to be well insulated to reduce heat transfer between the conditioned and surrounding air, and to prevent condensation.
- 3 **Vents** to direct the conditioned air into your rooms. For cooling, they're best installed in the ceiling or high up on the walls. For heating, floor vents are better. If you use your air conditioner for both, choose the vent location that's best for the mode that's more important to you, and look for vents with multi-directional or adjustable louvres.
- 4 **A return air vent** returns the air to the heat pump for reheating or recooling. It's usually installed at floor level and contains a filter to reduce dust circulation.

Such a system is only as good as its weakest link — don't buy off-the-shelf; have it designed for your home by an expert. Talk to your installer about:

- **Energy efficiency:** Air conditioners are very efficient. For every kW of electricity consumed, good models produce two or more kW of heating or cooling capacity. The more energy-efficient your air conditioner, the less you pay in running costs and the lower its environmental impact.

Models up to 7.5 kW cooling capacity (enough for very large open-plan areas) must carry an energy rating label — the more stars a model has, the more efficient it is, and the lower its running costs.

The efficiency of larger models (most ducted systems) is expressed as the cooling or heating co-efficient of performance (COP) — the ratio between the cooling or heating capacity (in kW) and the amount of electricity used in the cooling or heating process (in kW). The higher the better — look for a model with a COP of 2 rather than 1.5.

- **Noise:** Ask for the air conditioner's noise level. The large models in ducted systems can be very noisy. Make sure you have a spot to install it where it doesn't disturb you or your neighbours. Check with your local council for noise regulations.

- **Zoning:** Rather than cooling or heating your whole house to the same temperature, you can divide it into two or more zones to be conditioned separately (for example, the living area during the day, bedrooms during the night). Zoning requires a more sophisticated control system. However, you can do with a smaller (and cheaper) heat pump, and will save considerably on running costs (see *How much they cost to buy and run*, left).

- **Thermostats:** Look for programmable models, so you can program different temperatures during the day, and start and finish times.

Annual running costs*

System	New home	Existing home
Low-efficiency (COP=1.5), whole house	\$735-\$770	\$1080-\$1115
High-efficiency (COP=2.0), whole house	\$550-\$580	\$810-\$835
High-efficiency (COP=2.0), zoned	\$330-\$350	\$485-\$500

* For a 150 m² Melbourne house, as an example.

COP Co-efficient of performance — the ratio between the capacity (in kW) and the amount of electricity used (in kW); the higher the better. See What to look for, above, for more information.



WILL GORDON

How heat pumps work

Air conditioners work on the heat pump principle. As the name suggests, they pump heat from one place to another. Appliances like fridges and heat-pump water heaters use a similar system.

This is how the heat pump cycle works in cooling mode in an air conditioner:

- A fan draws hot air from your home over a cold liquid, called a refrigerant.
- The refrigerant absorbs heat from the air, cooling it. The air then flows back into your home.
- The warmed refrigerant evaporates and flows into a compressor, which creates a high-pressure, high-temperature gas.
- The gas is pumped through a heat exchanger outside your home, which allows heat to escape and the refrigerant to cool and liquefy again.
- The refrigerant flows through an expansion device that lowers its pressure, cooling it further to increase its potential to absorb heat again.

Reverse-cycle air conditioners can reverse this process and be used for heating too.

THANKS

We'd like to thank the Sustainable Energy Authority Victoria, which supplied much of the information for this article.

Other central cooling and heating systems

Depending on where you live, you may only need a central cooling or a central heating system. In this case, a ducted reverse-cycle air conditioner may be overkill and a specialised system may be more appropriate.

All central systems need expert advice regarding the capacity and installation required for your individual situation. Your state energy authority may have more information on these systems.

CENTRAL COOLING-ONLY SYSTEMS

■ Evaporative cooling

An evaporative cooler has a motor-driven fan, a dust filter, a water tank and a wetting medium. The hot air is drawn across the wetting medium, which is saturated with water from the tank. The water evaporates, absorbing heat from the air, and cooler, moist air is blown into the room.

Evaporative coolers are cheaper to buy and run than air conditioners. They don't have a thermostat: they're either on or off.

Evaporative air coolers provide relief from dry heat. If you live in a humid climate such as coastal Australia, they'll make it even more humid — you'll need a refrigerative air conditioner. And if you live in a place where temperatures get very high you may not find one satisfactory either. If you're trying to cool a room down from the low forties, you're unlikely to get it much below 30°C — and unfortunately it'll be a pretty humid 30°C because of the moist air created.

With ducted systems, the main unit is installed in the roof, and the cooled air is ducted into the rooms via ceiling outlets. It can use up to 25 L of water per hour, so this type of cooling may not be the best choice if you live in a water-restricted area.

CENTRAL HEATING-ONLY SYSTEMS

■ Ducted air gas heating

Air is heated in a central gas heater (look for an efficient model with a high gas star rating) and distributed through insulated ducts to ceiling, wall or floor panels throughout the house (similar to ducted air conditioning). Different areas can be zoned, each with its own individual thermostat.

This type of heating can circulate a lot of dust (requiring a filter system that adds

to the running costs and maintenance requirements), and tends to dry the air.

■ Hydronic heating

With this system, water is heated in a central boiler, then circulated around the house to panels that radiate and convect the heat to the air. The boiler can be fuelled by natural gas, LPG, wood or off-peak electricity.

The panels are usually individually controlled, so you can adjust the temperature of each room according to your needs. Look for quick-response panels made from mild steel and with a relatively small volume.

This type of heating is very quiet and circulates only a little dust.

■ In-slab heating

With this type of heating, the concrete floor slab is heated by internal electric cables or hot-water pipes. It's not recommended for suspended concrete floors where the space underneath isn't occupied, or for slab-on-ground in areas with a high water table. And you'd probably only choose it if you were building a new home or an extension.

Electric systems run on off-peak electricity; hot-water systems can be fuelled by natural gas, LPG or wood.

This type of heating takes a long time to respond to changes in the thermostat setting, so it's often left running 24 hours a day on an appropriate setting — making zoning (separate thermostatic controls for different parts of your house) very important.

RUNNING COSTS AND GREENHOUSE GASES

■ With all central heating systems, running costs depend very much on what fuel type you're using and how much you pay for it. Compared to ducted reverse-cycle air conditioning, all types of natural gas heating and electric in-slab heating are likely to have lower running costs, while LPG and electric hydronic heating are likely to be more expensive to run.

■ Using natural gas or LPG produces much less carbon dioxide than reverse-cycle air conditioning, while other types of electric heating produce considerably more.



Electric wall or underbench OVENS

Most of these models cook well — but only a bit better than cheaper ones.

Electric ovens from around \$1500 to \$2200 are at the mid to high end of the market, but with stainless steel exteriors and self-cleaning liners, they're popular at the moment. They also have a variety of oven functions, which makes them versatile. We tested eight models like this.

A good thing about wall/underbench ovens is the flexibility they allow you when planning your kitchen. You can have your oven at waist or chest height or, if you don't use it a lot, under a bench and out of the way.

One limiting factor is that the grill's built into the oven in the models in the test, so you can't use both at the same time.

Why multifunction?

If you do a lot of cooking, multifunction ovens let you use the fan and elements in different combinations for different types of cooking — they've been the most popular choice of oven for a while.

All the ovens tested can do conventional baking and grilling, as well as some form of fan-baking (fan-assisted, fan-forced or both — see *Oven functions*, page 44, for more on this), and all allow fan-grilling.

How useful the different functions are probably depends on what you cook; *Oven functions* explains what each oven mode is useful for. And the profiles on page 46 list what each oven's best and/or worst at cooking, as a model may score well in one test but not another.

Hotter ovens may be perfect for roasts but not delicate or combination foods, for example, and you can't simply rely on the instructions to tell you what to do — the ILVE Tradition scored 'poor' in the meringue test using its instructions, but when we used our standard ones they were fine. You'll have to experiment and practise with your oven to get the best results.

Continued overleaf

IN A NUTSHELL

- **Pricier models** like these are probably not worth shelling out for unless you're keen on the look of stainless steel or require the extra oven functions.
- **Think about what you want to cook, and check the table and profiles to see if a model can handle this well.**
- **Self- or easy-cleaning functions** only remove some of the effort required to clean an oven, but they do make it a bit easier.

WHAT TO BUY

MIELE H316B	\$1899
FISHER & PAYKEL Essence B1601X	\$1507
WHIRLPOOL 6AKZ191/IX	\$1699

These models are very good for cooking with both the oven and grill, and good for ease of use.

Worth the extra money?

Overall, the cooking scores for these models are only slightly better than those of cheaper ones we've tested previously. Although the temperature controls in this test tended to be more accurate, that doesn't necessarily mean an oven will cook better, as other aspects come into play.

The ease of use scores also aren't as high as you might expect from self-cleaning or easy-clean ovens — they're still not easy to keep clean (see *Easy cleaning*, right, for more on this) and the stainless steel exterior needs polishing.

It's important an oven is well insulated, because this affects running costs (you don't lose as much heat out of a well insulated oven). For example, the **ILVE** is twice as expensive to run as the **MIELE**; the other models are somewhere in between.

Safety issues

■ If your household includes small children, the oven doors on the **WHIRLPOOL**, **MIELE** and **SMEG** stayed coolest to touch. None of the other models reached dangerous temperatures, but they could cause a burn with prolonged contact.

■ You'll need a cloth to handle the grill on most models; the **SMEG**, **WHIRLPOOL** and **ILVE** are exceptions because they come with a handle for the grill that doesn't get hot.

■ The oven shelves of the **MIELE**, **NEFF** and **BOSCH** tilted down too much when we pulled them out slightly and placed a weight on them, making it more likely that something could slide off the shelf, though the **MIELE** and **BOSCH** have a wire guard to help stop this.

■ The **WHIRLPOOL** has a child lock on the oven door.

Cleaning tips for stainless steel

Scrub greasy fingerprints with warm soapy water and a soft cloth, then wipe the surface dry with a clean, soft cloth. A surface or glass spray also works well — even for cleaning off spots.

WHAT TO LOOK FOR

CONTROL PANEL

- Dials that are easy to grip (crossbars help), and knobs, buttons or switches that are easy to operate.
- Soft-touch or pressbutton controls for oven functions and temperature control, as on the **FISHER & PAYKEL** — all the models have them for the timer.
- A display that shows the function you've selected and the current temperature — the **FISHER & PAYKEL** and the **WHIRLPOOL** have one.
- Labels that are easy to read and understand.
- A light that indicates the oven is in use, and another that shows it's warming up.
- A timer: This can be useful to remind you when food's cooked or needs to be turned. Most tested models can be set up to 24 hours, the **WESTINGHOUSE Virtuoso** for up to four hours, and the **WHIRLPOOL** for 99 minutes.

INSIDE

- An interior light.
- A good range of shelf positions. Three or more shelves may be handy, especially if you often cook several items at the same time.
- Shelves shouldn't slope down when pulled out, and should have a safety stop mechanism to prevent the whole shelf being pulled straight out of the oven.
- If shelves do slope, a guard at the front will help stop dishes falling off, but may make it harder if you want to slide heavy baking dishes off.

OVEN DOOR

- An oven door that's light and easy to open, and stays open in any position (without falling open or slamming closed).
- Enough space between the door handle and door to fit your fingers without burning them.
- A large enough window for a clear view inside — make sure you'll be able to see something cooking on the top shelf.

GRILL

- Because the grill is inside these ovens, spattering and smoking fat can make it messy. Look for a grill plate that traps fat and grease below it, rather than a wire rack.
- A grill tray that's easy to slide in and out and

comes out far enough to easily manipulate food at the back of the tray. Look for a safety stop mechanism.

- At least two grill tray heights.

EASY CLEANING

- Smooth surfaces and good access to all areas of the grill and oven.
- Most ovens in this test have self-cleaning surfaces (catalytic liners) that absorb fat splatters: to clean them you heat the oven at a high temperature for an hour and, when cool, wipe it with a damp sponge. However, this only works for fat splatters on walls that have the lining — you still have to scrub the rest. Wiping the liners with a damp cloth after each use is also recommended.
- The **NEFF** has a 'Hydroclean' function: you add water and detergent to the base of the oven and heat it for 20 minutes, when a buzzer reminds you to wipe the oven clean. It's better than no help, but you have to mop up the remaining water as well.

Other useful features when cleaning include:

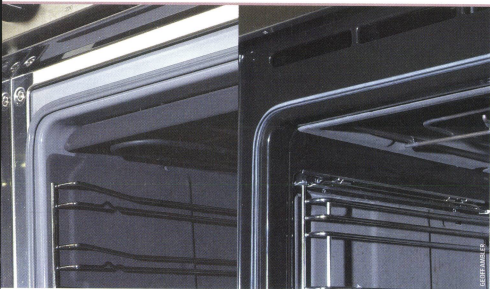
- Grill elements that can be tilted away from the ceiling, as in the **MIELE**, **NEFF**, **WHIRLPOOL**, **SIMPSON** and **WESTINGHOUSE**. The **SMEG** has a tray that sits above the grill element and can be removed for cleaning.
- Removable shelf rails or runners; all the tested models have these.
- A removable door; all the tested models have this.

OVEN FUNCTIONS

See the table for whether a model has the function, if it's not noted here.

- **Quick preheat:** The **MIELE**, **SMEG** and **WHIRLPOOL** have a rapid preheat setting.
- **Conventional bake:** Standard convection baking, where heat comes from elements at the top and bottom of the oven, provides reasonably even heating, but the temperature tends to be slightly hotter towards the top, which can be





Some 'self-cleaning' liners are more difficult to clean than others, because gaps in their coverage can be tricky to scrub. The Miele (left) has the best coverage and is the easiest to clean of the models tested. The Bosch (right) has awkward gaps.

useful if you want to cook different foods at the same time. It's good for cooking scones, muffins, cakes, fruit cakes (which require slow, gentle cooking), baked custards, pies, pastry, pavlovas, roasts and casseroles.

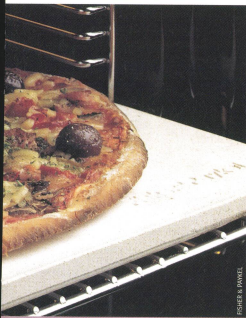
■ **Base (or classic) bake:** Another form of conventional baking where heat comes from the bottom element only. It's particularly recommended for pizzas, quiches and pies, as the base of the pan can absorb more radiated heat from the element.

■ **Fan-forced bake:** Heat comes from an

element at the back of the oven and is circulated by a fan surrounded by the element. The oven heats relatively quickly and efficiently, and heat is distributed evenly throughout. It can be useful for some cakes, pavlovas, roasts, pies, pastry and oven-bake ready meals.

■ **Fan-assisted bake:** The top and bottom elements of the oven are used, while a fan circulates heat. This can be useful for cooking on more than one level at once as it helps to distribute the hot air evenly.

Pizza stone: Just heat the stone for half an hour, whack on the pizza, and it's ready in five to seven minutes; you can buy one as an optional extra with the Fisher & Paykel for \$75 and it makes great, crispy-based pizzas.



■ **Grill:** Using just half the grill is possible with the FISHER & PAYKEL and the WHIRLPOOL.

■ **Grill with fan:** Can be used to cook chicken and other roasts.

Other functions available include:

■ **Defrost:** The fan operates without heat, moving air around to help defrost food. However, for food safety reasons, we recommend you defrost food in the fridge or microwave.

■ **Rear, top and bottom elements and fan:** The SMEG has this option, which gives a very even heat and can be useful for roasts.

■ **Top element, no fan:** The ILVE allows you to use the top element only. This is good for browning dishes such as au gratins, and for melting cheese toppings.

■ **Pizza/bread program:** The WHIRLPOOL has three programmed settings for baking bread or pizzas. Using them, pizza bases were quite crisp and the centre a bit moist (we didn't test it for bread).



Set a meat probe to your desired temperature, and when the inside of the food reaches it, the oven automatically switches off — good for roasting meat. The Fisher & Paykel and the Westinghouse have one.

For people with a disability

An occupational therapist from the Independent Living Centre assessed the ovens for ease of use by people with a disability:

■ If you have back pain, a wall oven installed at chest height is preferable to a freestanding oven.

■ All the models are reasonable for a wheelchair user with good upper body control but limited waist movement.

■ The best among those tested if you have upper limb dysfunction is the MIELE, which has a good-sized handle, pushbuttons and easy-to-grip knobs.

PERFORMANCE

6 OVEN FUNCTIONS

Brand / model (in rank order)	1 Overall score (%)	2 Oven score (%)	3 Grill score (%)	4 Ease of use score (%)	5 Running costs (\$ / 10 years)	Conventional bake	Fan-assisted bake	Base (or classic) bake	Fan-forced bake	Rear, top & bottom element & fan	Top element only	Grill	Half grill
MIELE H316B	84	86	90	78	359	✓			✓			✓	
FISHER & PAYKE L Essence B1601X	83	86	85	78	684	✓	✓		✓			✓	✓
WHIRLPOOL 6AKZ191/IX	82	93	88	70	557	✓	✓		✓			✓	✓
NEFF B1541N1	78	90	85	63	588	✓			✓			✓	
WESTINGHOUSE Virtuosio POVJ7825	78	89	75	73	549	✓	✓		✓			✓	
BOSCH HBN3650AU	76	83	85	65	604	✓	✓					✓	
SMEG SA39BX1	75	77	83	68	621	✓	✓	✓	✓	✓		✓	
ILVE Tradition 600TLMPI	60	77	53	53	736	✓	✓	✓	✓		✓	✓	✓

PROFILES

All the profiled models scored 'good' or better for cooking (with both the oven and the grill) and overall. They're profiled in rank order from top to bottom, left to right. Prices shown are recommended retail, as supplied by the manufacturers in August 2001.

MIELE H316B

Price: \$1899.

GOOD POINTS

- Very good for oven cooking: perfect for roasting chicken.
- Best for grilling.
- Equal best for ease of use: both the grill and oven are easy to use.
- Easy-clean liners have the best coverage in the test, with few gaps, so are the easiest to clean.
- Cheapest in the test to run.
- Oven door stays relatively cool.
- Has a rapid preheat setting for the oven.



PROFILES: GOOD GRILLER

BAD POINTS

- All the wire shelves tilt down too much when pulled out, but wire stoppers help prevent food sliding off.

WHIRLPOOL 6AKZ191/IX

Price: \$1699

GOOD POINTS

- The best for oven cooking: perfect for custard tarts.
- Very good for grilling: perfect for sausages.
- Has a rapid preheat setting for the oven.
- Coolest oven door.
- Has pizza/bread program.
- Handle supplied to remove hot grill tray.

BAD POINTS

- Equal lowest in the test for ease of using the oven, although the controls are good.



- The grill tray's a bit wobbly.
- Normal preheat's very slow.
- No self-cleaning oven liner on the ceiling.

Note: The door has a child lock, which may be a good safety feature for some families, but which makes it awkward for adults to open the door.

FISHER & PAYKE L ESSENCE B1601X

Price: \$1507

GOOD POINTS

- Very good for oven cooking: perfect for baking scones and roasting chicken.
- Very good for grilling.
- Equal best for ease of use: has soft-touch controls.
- Has a meat probe so you can monitor the core temperature of roasts — it switches the oven off when they're ready.



- You can buy a pizza stone as an optional extra (\$75).

BAD POINTS

- No self-cleaning oven liner on the ceiling.

NEFF B1541N1

Price: \$1799

GOOD POINTS

- Very good for oven cooking: perfect for sponge cakes and meringues.
- Very good for grilling.
- Relatively quick to preheat.

BAD POINTS

- Among the worst for ease of use, particularly the grill.
- The wire oven shelves tilt down too much when pulled out.



- No self-cleaning oven liners (see *Easy cleaning*, page 44).

7 FEATURES		SPECIFICATIONS						
Meat probe	Self-cleaning liners	Controls	Usable oven volume (L)	Dimensions (H x W x D, cm *)	Warranty (years)	Origin	Manufacturer / distributor	Price (\$)**
		(A) Rotary	47	60 x 60 x 57	2	Germany	Miele	1899
		✓ (B) Soft touch	59	60 x 60 x 57	2	NZ	Fisher & Paykel	1507
		(C) Pop-out rotary	53	60 x 60 x 56	2	Italy	Whirlpool	1699
		(C) Pop-out rotary	60	60 x 60 x 57	2	Germany	Sampford	1799
		✓ (B) Rotary	66	60 x 60 x 61	1	Australia	Electrolux	1549
		(A) Pop-out rotary	50	60 x 60 x 57	2	Germany	Bosch	1899
		(B) Rotary	49	60 x 60 x 56	2	Italy	Omega Smeg	2215
		(A) Rotary	53	60 x 60 x 57	2	Italy	Electrolinx	2195

WESTINGHOUSE VIRTUOSO POVJ782S

Price: \$1549

GOOD POINTS

- Very good for oven cooking.
- Easy to use both grill and oven.
- Largest usable oven volume (66 L) of the models we tested.
- Has a meat probe so you can monitor the core temperature of roasts — it switches the oven off when they're ready.



BAD POINTS

- Only fair for making toast using the grill.
- No self-cleaning oven liner on the ceiling.

BOSCH HBN3650AU

Price: \$1899

GOOD POINTS

- Very good for oven cooking; perfect for sponge cakes and multiple-shelf cooking.
- Very good for grilling.
- Easy to use the oven.
- The two-part grill plate fits in the sink easily.

BAD POINTS

- The grill is difficult to use: the grill tray failed the tilt test, making food more likely to



fall off while you're cooking, though wire stoppers help prevent this. The oven shelves have the same problem.

SMEG SA398X/1

Price: \$2215

GOOD POINTS

- Good for oven cooking, and very good for grilling.
- Has rear, top and bottom elements plus fan function, which allows a hotter fan bake and is good for roasts.
- Easy to use the grill.
- Handle supplied to remove hot grill tray.
- The oven door stays relatively cool.
- Has a rapid preheat setting for the oven.



BAD POINTS

- Most expensive model tested.
- No self-cleaning oven liner on the ceiling.

- * Depth doesn't include handles and knobs.
 ** Prices are recommended retail, as supplied by the manufacturers in August 2001, but you can probably find a better deal by shopping around.
 (A) On side and rear walls and ceiling.
 (B) On side and rear walls only.
 (C) Has 'Hydroclean' system; see Easy cleaning, page 44, for details.

1 Overall score

The overall score was made up as follows:

- Oven score: 30%.
- Grill score: 30%.
- Ease of use score: 40%.

2 Oven score

We cooked a variety of foods designed to test the capabilities of the oven — all contributed equally:

- Scones (to test performance at high temperatures and evenness of cooking).
- Sponge cake (to test performance at moderate temperatures and multiple-shelf cooking).
- Meringues (to test performance at low temperatures for a long period of time).
- Custard tart (to test temperature variation during cooking and performance with a combination food).
- Roast chicken (to test ability of the oven to roast a whole food item).

3 Grill score

We tested the capabilities of the grill with the following food types — both contributed equally to the score for the grill:

- Toast (to test the evenness of grill heat).
- Sausages (to test how it cooks thicker food with a higher fat content).

4 Ease of use score

These factors contributed equally to the ease of use score.

- The controls.
- Using the oven.
- Using the grill.
- Cleaning.

5 Running costs over 10 years

These are comparative, not actual: they're based on the energy required to maintain the oven at 150°C above room temperature for two hours a day, at a cost of 12.5 cents/kWh.

6 Oven functions

Cooking programs use the heating elements and fan in different combinations to achieve different cooking effects (see *Oven functions*, page 44, for details).

7 Features

See *What to look for*, page 44, for more on these.

What about the rest?

The ILVE Tradition scored the lowest overall:

- It didn't meet the Australian standard for heat loss and is the most expensive model to run.
- It's the least user-friendly — the controls are stiff and the grill rack has no stopper and can be pulled out by accident.
- Although good for most oven cooking (very good for sponge cakes) it's still the equal lowest scorer for this in our test, and the worst for grilling.

RECALLS & BANS

If you find a recall or ban not on our list, please let us know. Companies often rent 1800 numbers for a couple of months after the recall is announced. If the number given is no longer operating, phone the manufacturer or retailer direct.

THE PRODUCT: Holden Australia has recalled **Commodore, Calais, Statesman and Caprice vehicles, including Holden Special Vehicles (HSV)** that fall within the affected production serial number (PSN) range L545673 to L659987 (the PSN is the last seven characters of the vehicle identification number (VIN) found in the lower corner of the passenger side of the windscreen), and were built from January 2000 to November 2000. **The problem:** The low-beam headlight relay could fail, in which case the low-beam headlight wouldn't turn on. **What to do:** Contact any authorised Holden dealer to arrange for your vehicle to be inspected and, if required, fixed at no charge. For further information contact the Holden Recall Assistance line on 1800 632 826, Monday–Friday, 8 am–7 pm (EST) and Saturday, 9 am–1 pm (EST).

THE PRODUCT: Volvo Car Corporation has recalled **Volvo V70 Cross Country Cars** — model year 2001, with chassis ranges from 0015208 to 0018829. **The problem:** An incorrectly torqued bolt may give the seatbelt insufficient restraining performance in a crash. **What to do:** Contact the nearest authorised Volvo dealer (if you haven't already responded to the mailout), to have the bolt checked for tightness at no charge.

THE PRODUCT: Nokia Australia has recalled **Nokia M1122 and MW1122 DSL models.** **The problem:** A component failure has been reported on the AC mains power inlet plug on the rear of the modems — this may cause an electric shock hazard. **What to do:** Don't detach the mains power cord connector from the modems until an authorised technician has carried out an electrical safety inspection (Nokia is contacting customers to arrange this). For further information, or to arrange for an inspection, call Nokia on (02) 9513 9624.

THE PRODUCT: Housewares International has recalled **Peg Perego Prima Pappa and Roller high chairs** with armrests of 5 inches long, manufactured before September 1999.

The problem: A child's head or arm could become trapped in the space between the armrest and backrest when the seat is reclined. **What to do:** Don't use the high chairs. Call 1800 654 614 to receive free 9 inch armrest replacements, which remove the entrapment hazard.

THE PRODUCT: Britax Child-Care Products has recalled **Steelcraft Adventure baby walkers, batch no. 0047, and Steelcraft Musical baby walkers, batch no. 0042, sold in NSW from November 30, 2000, to August 2001.** **The problem:** The baby walkers don't comply with NSW product safety regulations, as they don't have an adequate braking system. **What to do:** Don't use either baby walker. Contact Britax Child-Care Products on 1800 806 974 to arrange for a refund.

THE PRODUCT: Bambino Australia has recalled **Bambino Teddy Bear baby walkers, featuring the Bambino logo, model no. T1070DGA, and sold through Toys R Us stores in NSW from February 28, 2001, to August 2001.** **The problem:** The baby walkers don't comply with NSW product safety regulations, as they don't have an adequate braking system to prevent children falling down stairs. **What to do:** Don't use the baby walker. Return it to a Toys R Us store for a refund.

THE PRODUCT: Freedom has recalled **Sable Ottomans, featuring imitation fur with a spotted leopard print, sold from May 15 to July 18, 2001.** **The problem:** The zip on the ottomans doesn't comply with safety requirements and needs to be modified — the foam bead filling presents a severe danger to children if swallowed or inhaled. **What to do:** Return the ottomans to the nearest Freedom store for a refund or for modification to be carried out (this can be done while you wait) at no charge. For further information call Freedom on 1800 811 955.

THE PRODUCT: BKK Australia has recalled **Golden Mountain Soybean Sauce** (seasoning sauce), in 740 mL

and 200 mL glass bottles (all use-by dates), imported by BKK Australia (written on the label) and sold mainly through Asian retail outlets in Victoria, Queensland, NSW, SA and the ACT. **The problem:** Tests have shown unacceptable levels of 3-monochloropropane 1,2-diol (see page 16 for more). **What to do:** Return it to the place of purchase for a refund.

THE PRODUCT: Xiao Trading has recalled **Golden Mountain Soybean Sauce** (seasoning sauce), sold in 740 mL and 200 mL glass bottles (all use-by dates), through Asian retail outlets in the Melbourne metropolitan region from July 2000 to July 2001. **The problem:** Tests have shown unacceptable levels of 3-monochloropropane 1,2-diol (see page 16 for more). **What to do:** Return it to the place of purchase for a refund.

THE PRODUCT: Kalvecioglu International Turkish Food Export & Import has recalled **Gulsan brand helva, a Middle Eastern sweet, also known as halva or halwa, sold mainly from Turkish delicatessens in the Melbourne metropolitan region, in 400 g and 800 g sizes and the following flavours:**
■ Gulsan Kakaolu chocolate helva (expiry date 10/2001).
■ Gulsan Fistikli pistachio helva (expiry date 10/2001).
■ Gulsan Sade plain helva (expiry date 10/2001).
■ Gulsan Cacao chocolate helva (expiry date 10/2001).
The problem: The product could be contaminated with salmonella. **What to do:** Don't eat it. Return it to the place of purchase for a refund.

THE PRODUCT: Overseas Imports & Exports has recalled **Green brand halva, a Middle Eastern sweet, also known as helva or halwa, sold in the Melbourne metropolitan region from January 2001 to July 2001, in 350 g and 750 g plastic tubs and three flavours: plain, chocolate and pistachio.** **The problem:** The product could be contaminated with salmonella. **What to do:** Don't eat it. Return it to the place of purchase for a refund.

THE PRODUCT: Pagasa Asian Food Imports has recalled **Pagasa brand dried mackerel, lot no. 010596, sold in 227 g plastic bags through Asian (Philippine) retailers in NSW.**

The problem: The mackerel contains higher than acceptable levels of histamine, and could cause an upset stomach. **What to do:** Don't eat it. Return it to the place of purchase for a refund. For further information contact Pagasa on (02) 9894 9267.

THE PRODUCT: B Braun Australia has recalled **Omnicon insulin syringes 100U** — batch: 99G1682021, Aust L No: 70945.

The problem: The markings on the barrel of the syringe may be incorrectly positioned. This may lead to an inaccurate (higher) dosage when drawing up and injecting insulin. **What to do:** If you haven't already responded to its mailout, contact B Braun Australia on 1800 251 705, to arrange for free replacement of the syringes.

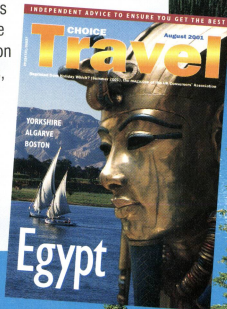
THE PRODUCT: Apple Computer Australia has recalled **AC adaptors supplied with PowerBook G3 notebook computers — model no M4402, sold from May 1998 to March 2000.** The AC adaptor is enclosed in a small rectangular black plastic box. On one end of the box there is a permanently attached lead that connects to the computer, and on the other end there's a two-pronged detachable power cord that plugs into a power point. The adaptor is approx. 125 mm long, 50 mm wide and 20 mm high. A label on the side reads in part "Macintosh PowerBook G3 AC Adapter", Model Number: M4402". **The problem:** The adaptors may overheat, posing a fire hazard. **What to do:** Call Apple Australia (have your AC adaptor and PowerBook G3 serial number with you) on 1800 001 912, 8 am–6 pm (EST), Monday to Friday, to arrange the shipment of a free replacement adaptor.

Weekly updates of recalls and bans are posted on the CHOICE website at www.choice.com.au. You can also email us any recalls or bans not on this list at ausconsumer@choice.com.au.

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Australian Consumers' Association

CHOICE

smart living loud

YOUR SAY
POLLS
FORUMS
FEEDBACK

Who are we?

We're independent and non-profit, funded by people like you. Our mission? We teach, inform, protect and empower consumers.

Online membership

computer
5th birthday issue

Wedding guide

Current issue

Car reliability

House & contents insurance

Our website has more information than even **CHOICE** itself — items that lend themselves better to the web medium than to print, for example, and some that are simply extra content to that published in the magazine.

If you're a current **CHOICE** subscriber you can get free trial access to the website. To register, just call us on (02) 9577 3399 and have your email address ready.

To whet your interest, here are some picks from the current information available on www.choice.com.au.

WANT A WORKING WEB PAGE?

Our 'computer tutorials' section has a number of tutorials to help. 'What's a web page', explains the basics for real beginners; 'Publish your web page' takes you through the necessary steps to getting yours online; and our 'Tour of web editor software' is good for more advanced Internet users. Just go to the home page, find 'Browse by category', click on 'Computers', then 'Tutorials' (on the right of the page), then scroll down and click on the title of the tutorial you're interested in.

For example, if you've created a web page and you're happy with what it looks like, 'Publish your web page' takes you through the steps you need to take before sharing it with the world. Our simple five-point checklist ensures you won't forget anything important — from how and where to rent space, to how to save and upload files, how to get the directory right and check the web page works. We've also included tips for file management, publishing your site, and more.

MIND THE GAP

The Government is using \$15 million of taxpayers' money to advertise the benefits of gap cover, but will you still be out-of-pocket if you use it? Our online article explains the whole deal in plain English. To find it, type 'mind the gap' in the search box on the home page and click on the article of the same name.

We take you through what the gap is (the difference between what a doctor may charge and your insurance company will pay), and what costs you could still be up for if you shell out for private health insurance and have to go to hospital. There's information on in-hospital services under gap cover, no-gap guarantee schemes, finding a specialist, in-hospital non-medical and ancillary services, and a reminder not to forget about co-payments and excesses.

For no-cost hospital care we update you on the public system, and explain the ins and outs of out-of-hospital medical costs.

We've also included links to take you easily to our interactive online tool that can help you find the best private health insurance for your needs (click on 'insurance calculator' in the article text), and to take you to other useful sites. Plus, have a look at the Consumers' Association's opinion of the Government's gap cover campaign in our health opinion column; just click on the sidebar link, then on 'There are still gaps in the government's umbrella'.

MANAGED FUNDS TOP 10

Thinking of investing your money in managed funds? Unit trusts are one of the most popular types of managed fund with small investors. You've read our article about managed funds in **CHOICE** (Jan/Feb 2001), now check out the online tables featuring the top 10 unit trusts. Just click on 'managed funds top ten' in the list of member reports on the home page, log in, then click on 'Unit Trusts: Top Ten' in the sidebar.

We've listed the 10 best funds based on their performance over three years in each of the categories of Australian fixed interest, Australian shares, international shares, Australian property securities, and Multi sector 30, 50 and 70. The information is provided by Assit and updated monthly.

We've also included information on the funds' performance over one year and five years, and the management expense ratio (MER). The MER shows the total of annual fees and other administrative expenses incurred by the manager, calculated as a percentage of the fund's net asset value — the lower the MER, the less the manager is taking out of your profits. We also show how often each fund has achieved a negative return.

Remember, however, that as each person's circumstances will differ, you'll need to consider the information in terms of your situation — don't make investment decisions without thoroughly reading prospectuses and seeking expert financial advice.

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Editorial/production assistant Rino Breebaart. **Photographers** Rhonda Thwaitte, Vanessa Marshall.

Graphics co-ordinator Vanessa Marshall. **Marketing co-ordinator** Nicky Harris.

FINANCE AND PROPERTY: Manager Alan Johnston. **Accounts** Jeannette Dwyer, Kang G Zhu, Sera Vunilolaos.

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TEST RESEARCH (NATA-accredited) provides independent, fee-for-service testing and research on consumer products, services and regulatory issues for other consumer organisations, governments and industry; under some conditions it undertakes public testing. **Contact** Jeannette Dwyer on (02) 9577 3399.

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HOW TO USE THIS INDEX

Bold type indicates a test, survey or trial report, normal type indicates other articles.

* Indicates an update of a previous report, additions or corrections to reports, small follow-up items or letters. For space reasons, the index generally doesn't include Choice Cuts, many other small pieces, and Recalls and Bans.

A ir conditioners		
ducted, whole house	Oct	
reverse-cycle split-system	Oct	
Air coolers, evaporative	Nov	
Alarms, DIY home	May	
Alfalfa sprouts	Sep	
Alternative health therapies	Sep	
Annual buying guide	Dec	
Australian made	Jun	
B ank accounts with lower fees		Mar
Barbecues, gas	Dec	
Bicycles, hybrid	Jun	
Bookshops online	Nov, Jan/Feb*	
Brake and tyre service chains	Oct	
BSE ('mad cow' disease)	Mar	
Buying Australian	Jun	
Buying guide, annual	Dec	
C ameras, compact and APS		Jan/Feb
Camping		
showers, solar	Apr	
tents, dome	Apr	
Carpets, oriental	Jul	
Cars		
crash tests, ANCAP	Jun, Oct	
reliability	Sep, Oct*	
tyre and brake service chains	Oct	
used car safety	Jan/Feb	
CD players, personal	Jun	
Child/baby concerns		
head lice treatments	Aug	
highchairs	Aug, Oct*	
Coffee, instant	Oct	
Coffee machines	Apr	
Column heaters	May	
Computer		
buying your first	Nov	
offer to subscribers	Nov	
Coolers, evaporative	Nov	
Cordless phones	Jan/Feb	
Credit card loyalty schemes	Oct	
D epilatory creams		Mar
Digital TV	May	
Dishwashers	May	
Ducted air conditioning	Oct	
DVD players	May	
E ggs		Jan/Feb
Electric frypans	Aug	
Electrolysis, hair removal	Jun	
Energy drinks	Aug, Oct*	
Epilators	Mar	
Espresso machines	Apr, Aug*	
Evaporative air coolers	Nov	
F ax machines		Sep
Financial — see also Banks		
interest rates	Dec	
investment seminars	Aug	
managed funds	Jan/Feb	
margin loans	Oct	
retire at 50	Apr, Sep*	
Flu shots	May, Jul*	
F ood		
alfalfa sprouts	Sep	
coffee, instant	Oct	
eggs	Jan/Feb	
energy drinks	Aug	
ham, sliced and shredded	May	
honey	Jun	
ice cream	Jan/Feb	
muffins	Jul	
mushrooms	Oct	
noodles, two-minute	Mar	
olive oil	Nov	
pâté	Jul	
salad	Sep, Oct*	
saucers, simmer	Apr	
spreads, dairy		
and margarine	Aug	
Freedom of information	Jan/Feb	
Freezers, small	Aug	
Fridges, 385–420 L	Jun	
Frypans, electric	Aug	
G arden		
lawn trimmers, petrol	Nov	
secateurs	Sep	
Gas barbecues	Dec	
H air removal		Mar
electrolysis and laser	Jun	
Ham, sliced and shredded	May	
Hands-free kits for		
mobile phones	Apr	
Head lice treatments	Aug	
Health		
alternative therapies	Sep	
BSE/vCJD	Mar	
flu shots	May, Jul*	
immunisation, children	Oct	
insurance update	Jun, Aug*	
myths	Jul	
private insurance call		
centre advice	Nov	
water, how much should		
you drink?	Oct	
Heaters, column	May	
Highchairs	Aug, Oct*	
Home entertainment		
what you need	May	
DVD players	May	
Home/property inspections	Mar	
Home security		
DIY alarms	May	
makeover	May	
Honey	Jun	
House and contents insurance	Sep	
I ce cream		Jan/Feb
Ice cream makers	Dec	
Immunisation, children	Oct	
Index, four-year	Jun	
Insurance		
health, update	Jun, Aug*	
health insurance call centre		
advice	Nov	
house and contents	Sep	
travel	Nov, Jan/Feb*, Mar*	
Investment seminars	Aug	
L aser hair removal		Jun
Laundry tablets	Jul	
Lawn trimmers, petrol	Nov	
Light bulbs, incandescent	Oct	
Loyalty schemes, credit cards	Oct	
M ad cow disease		Mar
Managed funds	Jan/Feb	
Margin loans	Oct	
Media, science reporting	Mar	
Microwave ovens, 30–35L	Jul	
Mobile phones		
hands-free kits	Apr	
WAP technology	Apr	
Money — see Financial		
Mops, steam	Apr	
Muffins	Jul	
Mushrooms	Oct	
N ail polish		Jul
Noodles, two-minute	Mar	
O live oil		Nov, Jan/Feb*
Online bookshops	Nov, Jan/Feb*	
Oriental carpets	Jul, Oct*	
Ovens, wall, electric		
multifunction	Oct	
P âté		Jul
Pest control devices, electronic	May	
Phones		
cordless	Jan/Feb	
mobile — see Mobile phones		
plans, local and STD	Jul	
Power, standby	Dec, May*, Aug*	
Property/home inspections	Mar	
R efrigerators — see Fridges		
Retire at 50	Apr, Sep*	
Reuse and repair centres	Sep	
S alad		Sep, Oct*
Sauces, simmer	Apr	
Science in the media	Mar	
Scooters	Dec	
Secateurs	Sep	
Security		
DIY home alarms	May	
home makeover	May	
Shavers, men's	Mar	
Shiraz	Dec	
Shopping, supermarket		
price survey	Dec	
Shower gels	May	
Showers, solar	Apr	
Spreads, dairy and margarine	Aug	
Standby power	Dec, May*, Aug*	
Steam mops	Apr	
Supermarket prices	Dec	
T elephones — see Phones		
Television		
digital	May	
51 cm	Apr	
Tents, dome	Apr	
Toasters	Apr	
T oilet paper		Jul
Toothpaste	Jun	
Travel insurance	Nov, Jan/Feb*, Mar*	
Tyre and brake service chains	Oct	
V acuum cleaners		Aug
VCRs, hi-fi	Jan/Feb	
W all ovens, electric		Oct
multifunction		
WAP technology	Apr	
Washing machines	Mar, Sep	
Water, how much should you		
drink?	Oct	
Wax kits, hair removal	Mar	
Webmail	Oct	
Wine, shiraz	Dec	

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The Australian Consumers' Association is completely funded by our subscribers, book purchasers and other customers. We don't receive ongoing funding from government or any commercial source. Your donation or bequest to ACA will assist our work of informing and representing Australian consumers. To make a donation or for further information, call Megan (pictured) on (02) 9577 3399 or write to: Friends of ACA, 57 Carrington Road, Marrickville 2204.

Wake me up before you go go ...

If you were able to celebrate your own wake, that *would* be cause for celebration!



Celebrate at the Award-winning KILLARA INN

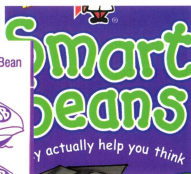
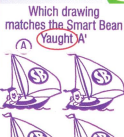
- Your Birthday
- Your Wedding
- Your Anniversary
- Your Wake

PRACTISE WHAT YOU PREACH

A reader's son ordered this spellchecker on the recommendation of his school teacher. Needless to say, no-one was particularly impressed with the spelling on the instruction manual's front cover!

NOT-SO-SMART BEANS

Smart beans claim to "help you think" — but apparently won't help you spell.



Ingredients: Whole grain Rolled Oats, Soy Rice Crispy (Rice, Soy Grits, Dehydrated Cane Juice Crystals, Soy Isoflavone Concentrate, Caramel Colour), Mixed Fruit Juice Concentrate (pineapple, Pear, Peach), Soy Protein Concentrate, Dehydrated Cane Juice Crystals, Whey, Maltodextrin, Soybean Oil, Coconut.

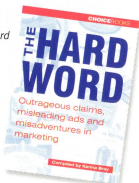
A rose by any other name ...

Sugar-conscious consumers checking the label of this breakfast cereal may have to employ a little lateral thinking to find it in the ingredients list, where 'dehydrated cane juice crystals' appears twice. Are they simply trying to avoid using the dreaded s-word, or is there something more to it?

After consulting nutrition experts, we learnt that dehydrated cane juice crystals are a less refined form of sugar, retaining small amounts of some minerals missing from white sugar. However, to all intents and purposes it's pretty much the same as sugar. Regardless of whether dehydrated cane juice crystals are more desirable than white sugar, the cereal contains 27% sucrose, which is too high a level to recommend it for everyday eating.

HAVEN'T SEEN YOUR ENTRY PUBLISHED?

Perhaps it's in the *Hard Word* book — coming soon to CHOICE Books. Our compilation of the best of the *Hard Word*, plus lots of new stuff we haven't published before, will be available in November.



guarantees to double your income in 90 days ...



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Earn 25% per annum, bank-guaranteed!

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WOW! WHERE DO I SIGN?

We'd hardly consider One.Tel a glowing example of how to get rich — unless eventually going broke is part of your grand financial plan. Even Yahoo! and Amazon have had their share of financial jitters in recent times.

Was it just bad luck that "business genius" Henry Kaye chose these companies to illustrate the pinnacle of wealth success he's going to teach you? Or was it a lead-in for the next paragraph, where we learn that he'll teach you how to sell "unsuccessful" businesses for a substantial profit?

HOW ABOUT A LITTLE HELP?

The *Hard Word* would like to thank all the readers who've responded with examples of outrageous ads, promotions and products. Thanks to S Morrissey, J Farrington, the Neely family, B Nott and B Manchester for their contributions to this month's *Hard Word*. Please keep sending them in.

If you have any examples you think deserve to be on this page, send them to *The Hard Word*, CHOICE, 57 Carrington Road, Marrickville 2204, or email your suggestions to thehardword@choice.com.au.

A request from our art team: If you send us clippings, labels or packaging, please keep them as clean and neat as possible (and don't mark them with highlighters or pens or cut the corners off, etc) so we can reproduce them on this page. Thank you.